STOCKHOLM UNIVERSITY

Department of Asian, Middle Eastern and Turkish Studies

Money as Defined Concept in Conceptual Metaphors of Japanese

Bachelor's degree project Japanese Spring 2016

Daniel Sundblom

Supervisor: Mitsuyo Kuwano Lidén

Table of contents

Abstract	2
Note	3
Introduction	
Background	3
Purpose of This Paper	4
Research Question	5
Theory	
Social Mentality	6
Innovative Language Use and Linguistic Communities	11
Conceptual Metaphor	13
The economy of language and the metaphoric meaning of money	14
Non arbitrary aspects of metaphor	16
Other than linguistic realizations of metaphor	17
Metaphor analysis	18
Theory Level Versus Processing Level	19
Method	20
The Data	22
Results	
MONEY as Syntactic Topic	23
Source Domains Identified in the Data	25
Experiential Bases Identified in the Data	28
The Metaphoric Meaning of Money in Japanese	29
Negative Information Motivating Metaphor	31
Reflections of social mentality	33
Language constraining conception of money	33
Conclusion	34
Further Research	34
Summary	35
References	37
Appendix A	38
Appendix B	39

Abstract

This paper is a study of *conventional conceptual metaphors* that concern money in the Japanese language. The theoretical background is based on the relationship between language and culture. Conceptual metaphors are considered here as reflections of culture in language, and the dimension of concern is that between language and *social mentality*. The main question was how money is conceptualized in Japan according to the metaphoric meaning of money in Japanese. In order to find an answer, a survey was conducted of a total number of 2549 sentences, using the *Balanced Corpus of Contemporary Written Japanese*. The data consists of all identified metaphors that has money as *target domain*, and conceptual metaphors that are entailed by the metaphors in the data are all seen as part of the metaphoric meaning of money in Japanese. The results show that there is a central and a more periphery metaphoric meaning of a concept such as money. Furthermore, the data suggests that metaphors that concern money as syntactic subject are motivated by negative information. A clear tendency in the data indicates that metaphors from *source domains* that are used with a relatively small amount of variation in this particular context, carry information that is either neutral or particularly negative.

Keywords: money is a liquid, conceptual metaphor, social mentality, Japanese.

Note

Japanese words are transcribed using modified Hepburn Romanization, therefore transcriptions are italicized. Long vowels are indicated by a macron with the exception of long i, which is transcribed as *ii*.

- (は) is transcribed as wa when used as a particle, otherwise is transcribed as ha.
- (\land) is transcribed as e when used as a particle, otherwise is transcribed as he.
- (λ) is transcribed as n, with an apostrophe, before the vowels a, i, u, e, o and y, otherwise as n, without an apostrophe. Romanization of names of Japanese authors are not italicized.

Some Japanese examples presented in this study consist of 1) the Romanized original text, 2) morphological glosses (word-for-word translations) and 3) free translations. The aim of the morphological glossing is to make the grammatical structure of genetically different languages (Japanese and English) transparent and comparable, and only the morphological information necessary to illustrate the structure of Japanese relevant to this study is given. When detailed grammatical information is not annotated, the closest English translations are given instead.

Translations are mainly based on *Kenkyusha's New Japanese-English Dictionary* (electronic source). The dictionary *Nihon kokugo dai jiten* (electronic source) was also consulted.

Introduction

Background

Single words signifying more than one thing or concept, is a natural feature of all human languages. This is due to a principle referred to as the economy of language. Furthermore, semantic extension refers to the derivation of a new word meanings, from a word's original meaning. Metaphor is, together with synecdoche and metonymy, viewed as a typical example of semantic extension. Metaphor has been studied as far back in time as the days of Aristotle. It was also part of medieval European rhetoric. However, it received new attention during the twentieth century as views on metaphor developed within philosophy (Seta, 2009, p. 49).

The development of the cognitive sciences that started during the 1980's has brought about a whole new view on metaphor within cognitive linguistics (Seta, 2009, p. 49). Which has lead to great changes in metaphor research. But first and foremost, from then on this view became central to the view on language, within cognitive linguistics and the cognitive sciences in general. *Conceptual metaphor theory* is based on the idea that metaphor is not merely a matter of semantic extension, but concerns the way in which language governs cognition and behavior. Or put the other way around, the way in which cognition and behavior is reflected in language. This has lead to some new insights into the interaction between language and culture (2009, p. 50).

Metaphor is to understand or to grasp one thing or circumstance in terms of another thing or circumstance. Understanding or grasping is extended to experiencing (Seta, 2009, p. 50), and in our experience we do not need to put words on metaphors. Metaphors exist in cognition, and language becomes a bridge between implicit and explicit knowledge. Consequently, language as a bridge of communication can provide new metaphors for language users even before there is an implicit cognitive experience of them. How metaphors exist in cognition can be illustrated by this basic conceptual metaphor of English:

"Time is money" (Lakoff & Johnson, 2003; Seta, 2009, p.51).

In conceptual metaphor theory, this is regarded as metaphor in that one thing (time) is treated as another thing (money) in language. What is said in this expression may concern a concrete situation, but the statement is more general. As a stretch of language, *time* and *money* are here

connected by the copula *is*, which means that they are equal with regard to the semantics of the phrase. However, when we say *time is money* we do not mean that time and money are both the same thing, instead, we intend to convey to the listener how we are able to comprehend the metaphor that we express in language.

Furthermore, there is a similarity between this and what happens when we express the following three sentences:

- 1) a. "This gadget will save you hours".
 - b."That flat tire cost me an hour".

c. "How do you spend your time these days"? (Lakoff & Johnson, 2003; Seta, 2009, p.51) In conceptual metaphor theory, these three sentences too involve metaphor. The example is meant to illustrate how one concept is treated as another concept in a systematic manner. These three metaphors each concern a specific circumstance. Moreover, they indicate how English speaking cultures typically treat time as money in language. In conceptual metaphor theory, this observation is summarized on the form A is B, and the most general way to do this is to state the more general metaphor that was given first in the example: TIME IS MONEY. This is a conceptual metaphor because the concept of MONEY is mapped onto the concept of TIME, which means that MONEY is the metaphors source domain and TIME is its target domain. In the literature it is conventional to write concepts, in this concern, and conceptual metaphors in small capitals. The different linguistic expressions of TIME IS MONEY such as *save time* or *waste time*, are plainly metaphors according to conceptual metaphor theory.

However, when someone actually says *time is money* as in the example, this too is a linguistic expression of the conceptual metaphor. This is why small capitals are used, so that it is clear that it is the concept that is referred to, and not the phrase. TIME IS MONEY is a conceptual metaphor that is part of the common consensus that is charred by the English speaking world. This means that it is something speakers of English know, whether it is active in their memory or not. And they have this in common with all other language communities that have the same conceptual metaphor in their language.

Purpose of this paper

The purpose of this paper is to investigate how money is conceptualized in the common consciousness of the Japanese culture, based on observations of metaphors in language.

Metaphors that are mapped from different source domains onto the concept of MONEY, provide

insight into metaphoric concepts that are useful in language and thought for speakers of Japanese. The aim is to clarify the metaphoric meaning of money in Japanese, as it is understood in the common consciousness of the Japanese culture. Furthermore, the paper also attempts to give an account of why establishing a knowledge of this common consciousness plausibly could be seen as important for a deeper understanding of the Japanese language.

I chose the concept of money for the reason that it is a global phenomenon. Plausibly, money plays a similar role in all cultures that have money. But conceptual metaphors that has money in their target domain, may not for this reason be universal to all languages in which such conceptual metaphors can be found. This is a plausible assumption, considering the cultural differences of the world as well as the arbitrariness of language alone.

The Japanese economy is one of the largest economies in the world. Even if Japanese is only the eighth biggest language judged by number of speakers, it is the second strongest language in the world economically with 11% of the world's total BNP coming out of the country/countries where it is an official language (Dahl, 2007, pp. 90-91). Furthermore, Japanese is considered to be relatively rich in metaphors. At least this can be said about some areas (Seta, 2009, pp. 54-55). These two factors are significant for this investigation. The one says something in beforehand about culture and the other says something in beforehand about language, and in order to put the result of the survey in a perspective of these two factors, it was necessary to go outside of conceptual metaphor theory, to look in the area of language and society.

Research Question

The specific question that the investigation is attempting to answer is: What conceptual metaphors are there in the Japanese language that has MONEY as their target domain. The investigation consists of a corpus survey (*Balanced Corpus of Contemporary Written Japanese*) of two different lexical items for money. Wherein metaphors that have MONEY as their target domain were collected as data. The data was then analyzed to identify any significant conventional conceptual metaphor.

In human culture there is a give and take relationship between language and social mentality (Haga, 1985). In the theory section of this paper, some fundamental qualities of this relationship are first established. Then, the subsection *Innovative Language Use and Linguistic Communities* explores further the sense of identity that is expressed in language, as an important factor in the creation of language (Shibata, 1978). This theoretic background goes beyond, but is in this paper

considered to be consistent with conceptual metaphor theory as attributed to Lakoff and Johnson (2003).

The subsection on conceptual metaphor is also based on Lakoff (1993), which is only one chapter, and one chapter in Lakoff (1987). This subsection is also based on a quite recent study on how target domains of metaphors are structured by the source domain of VERTICALITY in the Japanese language (Zhong & Inoue, 2013).

Theory

Social mentality

The concept of money is investigated in this paper because it is understood to be a cultural reference point in many of the world's countries. Something as basic to modern society as money is definitely an interesting concept to describe by identifying conceptual metaphors. However, in order for conceptual metaphors that concern money to say anything about language, or culture, some fundamental qualities of human language will first be introduced.

Human language has an arbitrary quality. This means that no logic can fully explain all aspects of it. The sounds of human language are dependent on the actual reality of how the human body is constructed. However, the phonology of human language is only constrained by the reality of human physiology. The major part of the rules that govern phonology is a set of conventions that are originally arbitrary. The sets of sounds that make up words follow these conventions, and further, meaning is attached to words in a systematic but originally arbitrary manner. Furthermore, grammar is a set of rules that govern how systematically constructed sentences carry meaning due to mostly arbitrary conventions and not because of a natural relationship between language and the reality that it can be used to indicate (Haga, 1985, p. 4). Human beings develop a sense for the different rules and conventions that govern their native language (Haga, 1985, pp. 157-159). Furthermore, the system of how meaning is attached to sounds is the one characteristic that fundamentally distinguishes human language from other animals' auditory forms of communication (Haga, 1985, pp. 4-5). Given the nature of human language as a system for communication, the human environment is in great portions a world of information. That is to say, the human experience as it is understood by humans is a combination of the direct experience of reality, and the interpretation of pure information (Haga, 1985, p. 5).

Furthermore, the human experience forges a mental system of evaluation that will bring to the human consciousness to what extent things are good or bad, desired or not desired, and naturally this system is partially foraged by the world as experienced through information. The evaluation system may differ between individuals. However, similarities between individuals can be expected to be common. Furthermore, these similarities are taken for granted in the human consciousness. Language has meaning only in relation to this evaluation system, and equally important, language works to maintain this system. Consequently, the mental evaluation system and language, are both equally important components of culture (Haga, 1985, pp. 9-10).

As the surrounding environment changes in ways that affect the use of language. There is no natural force involved to drive this change that is independent from human involvement. Yet still, human beings are not in control of change but are somehow forced to constantly follow change. However, humans are able to control their environment in many aspects, and as change happens, human beings maintain their intention to shape their own environment, as well as their ability to do so (Haga, 1985, pp. 163-164). Consequently, as innovative language use such as new linguistic expressions of conceptual metaphors becomes conventional language use, there is a demand for new conventions in language, based on changes in the human experience. And changes in language use of this kind happen based on the fact that this demand is strong enough to affect the whole language community.

As humans use language, they do it in a cultural context. Furthermore, this means that they participate in a constant exchange of the information that in return partially tell them what constitutes their surrounding environment. This consistent use of language in a cultural context fosters a particular *social mentality* (Haga, 1985). Which can be said to be "the consciousness that the members of a given social group possess collectively". This definition is given by Munesuke Mita in Kreiner, Möhwald and Ölschleger (2004, p. 387). Moreover, it is noted how "KIKKAWA (1998: 19, note 1) pointed out [that] social mentality (*shakai ishiki*) is one of the rare concepts in contemporary Japanese social science which has not been derived from the direct translation of a Western concept, but which was developed in postwar Japanese sociology" (Kreiner et al., 2004, p. 387). However, the Japanese term here is "*shakai ishiki*". Haga (1985, p. 54) uses the Japanese term "*shakai shinri*" as well as "*sosharu mentaritii*" written in katakana. The English translation is also given by Haga in parenthesis. Social mentality just like culture is a multifaceted concept. However, it is used here because it is an aspect of human culture that allows to be specific when discussing the interaction between language and culture. Environment is equally important for the fostering of a culture's social mentality, but the dimension that will

be of focus in this paper is that between language and social mentality. Importantly, language is seen as natural, and the human brain is seen as universally proficient to acquire, use and participate in the constant change of any of the world's natural human languages. However, the different characteristics of a language are a product of a culture's social mentality, and conversely, there are peculiar features of social mentality that are caused by the influence of language. As Haga also explains, in this two way relationship the first mentioned effect may be easier to accept (1985, p. 60).

According to Haga, reflections of culture as well as reflections of social mentality can be observed in language. On the other hand, language works to constrain the aspect of human consciousness that is here called social mentality (1985, p. 65). The most important area for this effect is vocabulary. Grammar and phonology are not as important. The reason for this is that a language's lexicon is a system of items that each carry their given share of allotted meaning. This system is different for each language and corresponds to an actual culture, or society, where the language is spoken. Societies are reflected in the vocabulary systems of languages as well as in dialects, and even in individual words of languages (1985, p. 65). Haga gives an example to illustrate this in comparing the words for brother and sister, in Japanese and English. These words in Japanese do not really mean the same thing as their English counterparts. Japanese has two unique words for brother and sister each, and they correspond to older or younger brother and sister (1985, p. 66). Haga does not mention the more neutral word for sibling in his example, and it is grammatically possible to say male or female sibling. However, these words cannot be regarded as counterparts to brother and sister in English. Examples like these are examples of how the vocabulary of a language is a direct reflection of structures in society. Languages in this regard "do not differ in what they can express, only in what they have to express" (Trudgill, 2000, p. 62). And apparently, in this regard the age of siblings, relative to the speaker, has to be expressed in Japanese. The example illustrates how language constrains social mentality. As concepts are made available by the language we speak, we acquire a social mentality that is based on the use of them. Other examples can be brought from Japanese pronouns and Japanese honorific expressions (Haga, 1985, p. 66).

Japanese honorific expressions, or *keigo*, is a reflection in language of social structures in the Japanese society. However, *keigo* does not plainly reflect social structures. It also reflects emotional aspects of interpersonal relations. These aspects of interpersonal relations are more

fine grained. In order to discuss this difference Haga brings up a completely different area, in suggesting how the more fine grained emotional aspects of the Japanese social mentality are reflected in names that are given to Japanese railway trains. Compared to other societies, Japanese trains are given names inspired by the natural landscape in a typically Japanese fashion. These train names resemble expressions used in haiku poetry and are indeed a projection of the Japanese social mentality in language (1985, pp. 67-68). Significantly though, names of trains are items of vocabulary. *Keigo* differs not only in vocabulary but also in grammar, which is a deeper layer in the language's structure. This is an indication of the importance of matters concerning interpersonal relations in the cheered Japanese consciousness (1985, p. 68).

Just like words that are used to indicate siblings, and names of railway trains, metaphors are expressed in the vocabulary of language. The fact that some metaphors, just like some non metaphoric words or bigger constructions, of a particular language do not have a direct counterpart in all of the world's other languages demands for knowledgeable translators (1985, p. 69). And sometimes even more basic words can be discussed with regard to this issue. Among others, a German scholar of Japanese literature is supposed to have said that German does not have a word for *natsukashii*. This of course is not a joke on Germans, but again concerns the interpersonal emotional aspects of Japanese social mentality, versus those of German social mentality. The word means dear to one's heart; longed-for; nostalgic, and furthermore, the Japanese words shitau and akogareru which both can mean yearn or long for can also be mentioned as problematic in a similar way, when translated into western languages (1985, p. 69). Still, this concerns a deeper understanding of language and vocabulary. For everyday purposes it is most certainly an easy thing for Germans and other westerners to both understand and use these words, as long as they acquired enough Japanese to put them in a sentence. However, what Haga means to demonstrate with these examples may be taken to suggest that the semantic meaning of words can be far more complicated to describe than the use of conceptual metaphors that is investigated in this paper. Furthermore, as is understood from this section, what is going to be identified in this paper is reflections of the Japanese social mentality in everyday expressions of the Japanese language. Money is of focus because it is a basic component in modern society, and metaphor is of focus because it is expected to make these reflections visible. It is a general consensus in and around linguistics that even the deeper layers of culture are

reflected in language, and that language may provide clues to questions about aspects of cultural phenomena (1985, pp 71-72).

However, the idea that language constrains social mentality in ways discussed in this paper, may not always be part of this general consensus. For this reason, it is important to distinguish this from the Sapir and Whorf hypothesis. The Sapir and Whorf hypothesis is similar in many aspects. If social mentality is to be understood, then it is important that social mentality has an active role in the creation of language, and that language on the other hand constrains social mentality. Furthermore, it is the vocabulary of a language that is the most important factor for this effect (1985, p.76). The obvious similarity is that the Sapir and Whorf hypothesis too "is concerned with the possibility that human beings' views of their environment may be conditioned by their language", and that the environment at the same time is "reflected in language" (Trudgill, 2000, p. 15). This idea was controversial, and the stronger view of the Sapir and Whorf hypothesis would be the one to fully acknowledge how language constrains the ways in which the people of a language community thinks. There are different versions of this view, but in short, "any strong form of the Sapir – Whorf hypothesis – say, that thought is actually constrained by language – cannot be accepted" (Trudgill, 2000, p. 15). Originally though, the Sapir and Whorf hypothesis was more moderately formulated than it is often credited for, and more holistic with regard to the two way relationship of language and culture wherein there was an equally focused interest on how the way people think based on the environment that they live in, including social aspects, helps to create and shape their native language (Haga, 1985, p. 77). Also, this hypothesis is concerned with one question that is of relevance for the dimension of language and social mentality, namely "that habitual thought is to a certain extent conditioned by language" (Trudgill, 2000, p, 15). This is as long as habitual thought is not confused with possible ways of reasoning. In conclusion, in the two way relationship between the vocabulary of language and social mentality it is important not to misinterpret how language constrains social mentality and what this could potentially entail. Social mentality is a limited aspect of human thought, and the model is a dynamic one with two major functions. Social mentality creates and shapes language, when it is born and as it changes. All the time while language sets limits for how social mentality can take its shape. But the two effects work simultaneously in a dynamic fashion (Haga, 1985, pp. 76-77).

Innovative Language Use and Linguistic Communities

The human experience of being a member of a language community involves an awareness concerning group membership and dialect. This goes beyond a objective division into separate groups based on regional origin and linguistic variation in that the division is also based on evaluation (Haga, 1985, p. 99). Culture differs from region to region, and in a sense, observations that connect language and culture is part of people's everyday lives (Haga, 1985, p. 100). Consequently, connections between linguistic and cultural variation in different regions become part of a culture's common consciousness wherein dialects are valued differently. One example of how a high value is attached to dialect is how the dialect linked to the political center of a country is generally also referred to as the standard variety of a language, and generally also valued as better in some aspects, than other dialects (1985, p. 101). However, it has to be noted that there is a difference between this and a more scientific way of cultural observation. In linguistics, this is referred to as *prestige*, as in the quality of being better in some aspects in the majority of people's views (Trudgill, 2000, p. 8). Dialects are known to have equally valuable properties, linguistically. This mentioned, the way in which group membership on the scale of dialect communities is of concern for human beings, and the way in which this concern is reflected in language, to make language a symbol for identity, is an important factor when new words come into existence. This aspect of human behavior is of concern for metaphor, in two ways. First, metaphor is based in language that is non metaphoric, and metaphors are introduced into the language of a language community because there is a need for them in the shared experience of all members. Second, metaphors make use of language in new ways, and this may be compared to how groups within language communities invent new ways of using language out of the solidarity involved in the shared understanding of new meanings of words.

In order to put metaphor in a perspective of innovative use of language, linguistic variation such as jargon, technical terminology, workplace specific terminology, and slang will here be used as a reference point. What these specialized vocabularies all have in common is that they were invented by groups of society who needed them based on conditions regarding why they would be considered groups to begin with (Shibata, 1978, p. 293-294). In slang for instance, solidarity between friends is regarded as a basis for the invention of new words. Furthermore, the use of slang is understood to strengthen solidarity as well as the sense of group membership. On the other hand technical terminology is invented by groups involved in specialized fields of

knowledge, as these fields make new progress. However, here too group membership and solidarity is symbolized by these vocabularies. This kind of linguistic variation will here be referred to as *register*, which is used as the English translation of the Japanese term "*shūdango*" (Shibata, 1978, p. 293; Takamizawa et al., 2004, pp. 172-173). Registers are linguistic variations used in particular kinds of social contexts (Trudgill, 2000, p. 82), and the focus here will be on solidarity as an important factor in the invention of new linguistic expressions.

In order for words of a particular register to be borne there need to be a sense of solidarity between the group members. There need to be homogeneity in the group. And if a group is only a temporary constellation, these conditions will be harder to fulfill the bigger the group is. However, the smaller the group, and the more isolated the group, the easier the formation of register specific linguistic expressions. Ideally, a group of actors or performers that travel around. But even in election offices, words of this kind come into existence (Shibata, 1978, p. 295). These words are borne out of solidarity and work to strengthen solidarity between group members. In an example from an American shipyard during the second world war the phrase "these things" was altered to "them things", and the group consisted of the workers of the shipyard. It was observed how no new members could be fully accepted in the group until they had started to use this grammatical construction "correctly" (Shibata, 1978, p. 295). As this example shows, register may involve grammatical constructions. However, the area of vocabulary is the most significant. Words may change either in form or in meaning. Also, specific pronunciation may occur, but is rare compared to specific morphology or semantic content. In written language, specific spelling may occur. This is also rare, but in Japanese it includes the altering of writing characters in names of organizations such as the Japanese labor union and the Japanese self defense forces (Shibata, 1978, pp. 295-296). Different from alphabetic spelling, specialized use of writing characters in names like these may be interpreted to be symbolic for the identity of the organization.

Register differs from dialect in that the group is not tied together by geographic region. Moreover, taking into consideration that the standard variety of a language is technically also a dialect, one major difference is that dialect is learnt by all, from when we are born. Register comes later. Furthermore, dialect is passed from generation to generation, and it is necessarily not so with register. Slang for instance is often trend words that come and go quickly. Finally, given the scale of the group in this regard versus that of dialectal communities, members of

society generally belong to far more groups compared to the number of dialectal communities they belong to (Shibata, 1978, pp 296-297). Register may of course involve metaphor. But more importantly, the birth of registers puts metaphor in a perspective of innovative language use in general. Against this background of how human beings invent new ways of using language, conceptual metaphors provide clues to a language community's social mentality. Register is in this regard a reference point on a smaller scale.

Conceptual Metaphor

According to Lakoff (1993), empirical results provide that "everyday metaphor is characterized by a huge system of thousands of cross-domain mappings, and this system is [also] made use of in novel metaphor". This means that "novel metaphor" may be seen as part of a language's metaphoric system, but cannot always be expected to be representative of it. These following definitions are based on conceptual metaphor theory (Lakoff, 1987; Lakoff & Johnson, 2003), which is also referred to as *the contemporary theory of metaphor* (Lakoff, 1993), and are central to how the term metaphor is treated in this paper.

- Conceptual metaphor = metaphorical concept
- *Metaphor*, refers to a cross-domain mapping in the conceptual system.
- *Metaphorical expression*, refers to a linguistic realization of such a cross domain mapping.
- In conceptual metaphor theory there is also a distinction between *conceptual mappings* and *image mappings*.
- Everyday metaphors are more often than not *conventional*, e.g. MONEY IS A LIQUID.
 Novel metaphor, or poetic metaphor, is an extension of the conventional metaphorical system. Both are expressions of culture.
- Some metaphors are possible cultural and linguistic universals. Others are possibly
 culture and language specific. On a spectrum, those that range from not completely
 universal to potentially specific are those that will provide further intercultural
 understanding.

The contemporary theory of metaphor can be traced back to Michael Reddy's now classic paper, *The Conduit Metaphor* (Lakoff, 1993). Moreover, this view challenges the division between literal and figurative language, wherein metaphor is a form of figurative language. For instance, the contemporary theory of metaphor challenges that "only literal language can be contingently

true or false" (Lakoff, 1993). However, concepts that are not metaphorical can be referred to as literal, but this literal-metaphorical distinction is different from the old distinction (Lakoff, 1993).

The economy of language and the metaphoric meaning of money. As mentioned briefly in the introduction, single words signifying more than one thing or concept, is a natural feature of all human languages. This feature is due to a principle referred to as the economy of language. This is a principle of language in general, but in this concern metaphor is part of the economy of a language's vocabulary. Furthermore, metaphor allows for insight into how this feature of language also is found in conceptualization. As an example, the word grasp can be used different ways. We can grasp a thing with our hand, or we can grasp an idea with our head, and just like this allows us to use the word grasp for both purposes we use a similar conception for both purposes. Or more specifically, we use those features of the concept of grasping something physically that are needed in the conceptualization of grasping an idea with our mind. A metaphor has a source domain and a target domain, between which there are one way mappings. These mappings are multiple, but may together be referred to as the metaphor's mapping. In this detailed description it becomes clear that the mapping actually is the metaphor, and this is also the definition of metaphor. Metaphors have a source and target domain but the mapping is the metaphor. The word grasp is a useful example, and importantly other expressions that has a similar meaning to grasp can also be used in similar ways e.g. get a hold of. One word for grasp in Japanese is tsukamu and the can-form of this word tsukameru is also part of the data from the survey of this paper:

2) mita koto nai okane ga tsukameru n da kara (BCCWJ)

mi-ta koto okane tsukameru da kara nai ga nsee-PAST thing money subj grasp.can from not **GEN** cop

'you'll be able to get your hands on money of the kind you've never even seen before' In this sentence, the word *tsukameru* was identified as metaphor. In general terms, the source domain is the grasping of something physically, and the target domain is the acquisition of something in its abstract sense. However, it is obvious that this model does not suit the purpose of this paper. Just like in the comparison of grasping something physically and grasping something with one's mind, this general description too is a possible metaphor of the word *tsukameru*. The purpose here is to identify metaphors that has MONEY as target domain, and for practical purposes the word *tsukameru* is the word that has been documented as a part of the data.

For this specific purpose, the metaphor is the treatment of money as is intended in the sentence (the acquisition of money). The metaphor's source domain is the action of grasping money physically with one's hands, and the metaphor's target domain is that of the intended meaning. The concept of MONEY has a partial meaning that says it may be either grasped physically or acquired in an abstract sense. Furthermore, as has been demonstrated by this example, The metaphoric meaning of MONEY involves that money in its abstract sense is conceptualized as a physical entity that may be acquired by grabbing it with one's hands. As will be discussed further in the next section, metaphor has an experiential base, and in this example the experimental base for the demonstrated metaphor may be understood as the experience of acquiring physical money by taking them in one's hand. Another widely recognized conventional conceptual metaphor that has MONEY as target domain is MONEY IS A LIQUID. This metaphoric concept allows us to see how money flows like the water in a river, or is distributed in our society like tap water. One linguistic realization of this conceptual metaphor in Japanese is this following example:

3) okane ga Honkon ya kaigai no shiba ni nagareru toki (BCCWJ) okane ga Honkon ya kaigai no shiba ni nagareru toki subj Hong.Kong and over.seas market PTCL flow time money GEN 'when money is moved to Hong Kong and other foreign markets'

The metaphor that was identified for the purpose of this paper was documented as the word *nagareru* (flow) only. Once again the more general metaphor of *flow* in this sentence is the flow of a liquid mapped onto a pattern of relocation. However, for this particular purpose the flow of a liquid is mapped onto a pattern of money being reinvested. In abstract terms, the defined concept is MONEY, therefore it is the target domain. The source domain is LIQUIDS, and just like the part of the metaphoric meaning of MONEY demonstrated in example 2., a key point in conceptual metaphor theory is that there is no other way for us to conceptualize money as a liquid other than this conceptual metaphor. This entails that MONEY IS A LIQUID must be seen as a part of the meaning of the word money, and that we can only understand this part metaphorically (Lakoff & Johnson, 2003, p. 115). Furthermore, would this metaphor not exist in English, then the word money would not have this partial meaning. Importantly, a significant part of the human conceptual system is non metaphorical, and the metaphorical part that is so important and

pervasive in the conceptual system is grounded in non metaphorical understanding (Lakoff, 1993).

Presumably, some economist around early industrialization saw the first appearance in history of cash flow as conceptualized by humans. Naturally, the source domain was already there in the human conception apparatus, as well as the target domain. However, to further allow humans to understand money matters and to further allow them to communicate about them, the metaphor was borne. It was forged by the environment, and equally it was a product of social mentality, and as long as it is useful for its purpose, language provides access to this particular conceptualization, to allow no other to take its place in the social mentality of its culture.

Non arbitrary aspects of metaphor. Conceptual metaphor is pervasive in literature, and in everyday communication, for the reason that it is central to abstract thought and symbolic expression. Moreover, metaphor cannot be considered a pure matter of similarity, for rhetorical or pedagogical purposes. Metaphors are concepts, that to an extent are shaped by the nature of the physical human body and the way in which the human brain makes sense of the external world. They are based on correlations between different domains of experience, thus they reveal crucial aspects of the nature of human cognition. We systematically use inference patterns from one conceptual domain to reason about another conceptual domain (Lakoff & Johnson, 2003, p. 246). Metaphorical mappings that map one domain onto another also map inference patterns from one domain onto another. Experience teach us ways to draw inference, and typically concrete domains are mapped onto more abstract domains. Consequently, "reasoning in abstract domains uses the logic of our sensory-motor experience" (Lakoff & Johnson, 2003, p. 248) to make sense of things that lack physical features, in ways that are already available to the brain. More specifically, this explains lower level, or primary metaphors. Primary metaphors are constructed spontaneously, prior to any knowledge of metaphors. "Inevitably, many primary metaphors are universal because everybody has basically the same kinds of bodies and brains and lives in basically the same kinds of environments, so far as the features relevant to metaphor are concerned" (Lakoff & Johnson, 2003, p. 257). However, "the complex metaphors that are composed of primary metaphors and that make use of culturally based conceptual frames. . . . may differ significantly from culture to culture" (Lakoff & Johnson, 2003, p. 257).

Metaphor is natural and motivated by the structure of our experience. The only way a conceptual domain can be used as source domain for metaphor is if it is well structured and

understood directly in human experience. Further, metaphor involves a correlation between the source and target domains based upon the experienced structure of both. In our day to day lives we experience this correlation, and it is the details of the mappings between the two domains in our experience that motivate the choice between possible source domains for metaphor in a given context (Lakoff, 1987, p. 276).

However, the choice between possible source domains for metaphor is arguably also governed by linguistic conventions. For instance, if English and Japanese is compared in this next example, then the choice of structure for the concept of TIME does not translate as good as the general idea of TIME:

4) Gogatsu gejun ni naru to, (BCCWJ)

Gogatsu gejun ni naru to

May lower.part PTCL become PTCL

'When we reach the end of may,'

The Japanese division of the month into upper middle and lower part is an example of translation issues of the kind introduced earlier, which involve metaphor.

Furthermore, the MORE IS UP metaphor is based on our experience of all motion relative to gravity, something that is always present in all human cultures. However, this fact do not predict that all languages has this metaphor. But what it does predict is that no language has the opposite, as in *less is up* (Lakoff, 1993). One quite exhaustive survey done by Zhong and Inoue (2013) of VERTICALITY as source domain for metaphors in Japanese shows the systematic structuring of, among other target domains, TIME and QUANTITY by this domain. From their results it can be confirmed that VERTICALITY as source domain for metaphor has a variety of motivations by human experience. And equally, that the competition between these different motivations are a characteristic of metaphors structured by the up down dimension, also in the Japanese language.

In conclusion, The experiential base for metaphor provides the insight that metaphor is motivated by the structure of our physical experience, and not predicted by it. Furthermore, complex metaphors that are based on culturally determined conceptual frames are in this respect also based on knowledge of the world as experienced through information.

Other than linguistic realizations of metaphor. To indicate yes or no by nodding or turning one's head is customary in the English speaking world. For this reason, expressions like shake one's head, turn one's head, or nod, have become part of the English language. As this has

already happened, the meaning of these expressions are in a sense independent of the actual gestures. Both the gestures and the linguistic expressions are taken for granted in the English speaking world, which means that the gesture of nodding in consent is a non linguistic realization of a cross domain mapping in the conceptual system (a metaphor), that is charred by the English speaking world. In Japan it is the neck that is referred to linguistically, and the meaning of yes or no is reversed. But interestingly, both cultures make use of the same gestures for quite similar purposes (Seta, 2009, p. 55).

Gestures like these, that are equally linguistic expressions, are important features in comic books, where they are often fantastic versions of the actual gestures (Lakoff, 1993). Different from the actual gestures though, these are graphic representations of them (graphic realizations of metaphors). Furthermore, in this aspect, comic books are rich in clues to the social mentality of a culture. And just like head gestures differ in meaning between English and Japanese as in Seta's example, representations of gestures and other bodily expressions in Japanese comic books may differ significantly from similar representations of social mentality in western comic books.

Comic books are not limited to gestures in this concern, and a famous non linguistic realization of MONEY IS A LIQUID is the graphic representation of expressions like *awash with money* or *swimming in money* as Scrooge McDuck dives into and swims around in the money in his vault. Consequently, metaphor is grounded in conception based on some sort of experience. However, while already in human conception, metaphors can take other expressions than of the kind they were first understood from.

Metaphor analysis. In order to demonstrate how the analysis of metaphors was done, the example TIME IS MONEY from the introduction section of this paper, is again useful. Provided that TIME IS MONEY has been identified, there is reason to put it in relation to other metaphors. TIME IS A VALUABLE COMMODITY is a closely related concept, or conceptual metaphor. However, when we say for instance *use your time effectively*, the expression is consistent with both, but none of them are entailed specifically. This means that others are possible. On the other hand, TIME IS A LIMITED RESOURCE is not only consistent with the example, but is a specific entailment of it.

However, the three sentences from the TIME IS MONEY example

5) a. "This gadget will save you hours".

b."That flat tire cost me an hour".

c. "How do you spend your time these days"? (Lakoff & Johnson, 2003; Seta, 2009, p.51) can be used to illustrate how for instance, *hours are savable by gadgets*; *hours are payment for tires*, or even, *time is a spendable thing*, are not useful as abstractions, because they are better understood on the form TIME IS MONEY. Importantly though, there is nothing to say that a metaphor needs to belong to a group that is sorted under a more abstract metaphor.

In conclusion, analysis aims to clarify the characteristics of the metaphoric system and tendencies in how it is used in practice. If one concept is treated as another in language, then it is a metaphor. An analysis that provides a new metaphor on the form A is B aims to provide an abstraction of the metaphor used in language, but one as specific as possible, in order to show how it is part of a system of entailments, in the overall metaphorical structure of a language. (Lakoff & Johnson, 2003, pp. 9, 109).

Theory Level Versus Processing Level

on the stronger view, (1999, p. 11)

Conceptual metaphor presupposes a cognitive approach to language as opposed to an objectivist approach, and there is a difference in how these two approaches view the human involvement in the relationship between language and the external world. In the objectivist view linguistic meaning is based on a direct correlation between language and the external world. This can be seen as leaving the human being out of the equation. In a sense this view goes all the way back to Aristotle. Even if a lot of research has been focused on the language ability, especially within generative theory. However, the cognitive approach on the other hand asks questions concerning what human conception actually is (Shimamura, 1999).

Cameron (Cameron & Low, 1999) stresses the importance of keeping distinct the theory level and the processing level within metaphor research. He refers to Lakoff (1987) in this quote: This 'strong' cognitive view has been disputed by Quinn (1991) and others (e.g. Steen, 1994) who prefer a weaker view on the metaphorical nature of thought. . . . While my personal preference is for a broad, weaker view, we include in this volume several papers that build

He sees it that more emphases should be put on potential effects on language processing and understanding, of the linguistic form of metaphors. And that this has been under-emphasized due to "the recent trend of reducing all metaphors to the form of A is B, in order to focus concern on conceptual content" (1999, p. 12). Furthermore, "linguistic metaphors" in Cameron's view, are not restricted to linguistic realizations as referred to in this paper. However, they are "stretches of

language having metaphoric potential". As opposed to metaphors on the processing level which are "processed metaphorically by a discourse participant on a particular occasion" (1999, p. 108).

In this investigation though, evidence from neurological studies for the theory of conceptual metaphor, account for the theory level processing level distinction. As considered in this paper, humans may have a non metaphoric similar understanding of a certain matter, but no alternative way to understand a particular metaphor. Experiments could of course be conducted to understand further how metaphors are processed, with methodology from psycholinguistics such as pausing, with the stretches of language identified as metaphor in this investigation. But the results would be of no concern for this paper.

In conclusion, the investigation concerns the vocabulary of written Japanese on the theory level in Cameron's distinction. However, the distinction is not fully consistent with the contemporary view on metaphor, as referred to here. Methodology adopted in this study will be explained further in the next section.

Method

Data was gathered from the *Balanced Corpus of Contemporary Written Japanese* (BCCWJ). The concept of MONEY was delimited by the two Japanese lexical items *okane*, which simply means money and *shikin*, which means funds or capital. Furthermore, the search terms included grammatical particles to provide data from two different syntactic contexts:

- 6) Syntactic subject: Okane ga shikin ga
- 7) Same context as would provide, relationship to money: *Okane to no shikin to no*

As a consequence, only the part after the search term in the search results was looked at. This means that MONEY followed by a verb as in this example may be included in the data:

8) gosen pondo no shikin ga tōjirareta (BCCWJ)

gosen pondo no shikin ga tōjirare-ta five.thousand pounds GEN capital subj invest.pass-PAST

'five thousand pounds were invested'

On the contrary, when MONEY is modified by the past tense of verbs, similar to this false example, it may not be included in the data:

9) *tōjirareta shikin ga* (not found in the corpus)

tōjirare-ta shikin ga
invest.pass-PAST capital subj
'the invested money'

However, a few tentative searches established how these search terms would delimit the investigation in ways most effective. For instance, money as the syntactic direct object will basically provide the same conceptual mappings as money in subject position, but with the difference of active as opposed to passive voice in the sentence. Moreover, the search terms together with the grammatical particle *wa*, or the topic marker, was not seen to be crucial to the investigation either, but will be discussed further in the *Results* section of this paper. Finally, the syntactic context of *relationship to money* was a special case found to be interesting.

The BCCWJ is an open source, and the only parameters that are adjustable are the boxes for stretches of language that occur in the context before and after the search term. Moreover, the corpus is divided into eleven different genres, each with its own time period, and a search will render a maximum of five hundred randomly selected displays of the search term. This means that searches with over five hundred hits, will within one session render the same display of randomly selected results, over and over, even if other searches are done in between. But an identical search in the next session will render a new randomly selected display of results.

Because the number of hits exceeded the limit of five hundred displays in the searches, all genres were searched individually, and two of them had to be searched by their sub genres with the search term *okane ga*. The number of hits was as follows: *Okane ga* 1887, *shikin ga* 655, *okane to no* 5, and *shikin to no* 2.

Table 1. Number of displays in the BCCWJ corpus

okane ga	1887
shikin ga	655
okane to no	5
shikin to no	2
Total number of displays in the corpus:	2549

The data is based on the following selection. Basic form, *masu* form, *te* form, *ta* form and the can-form are all regarded as the same variation of a linguistic realization of a metaphor. *Suru*-verbs and their noun forms are also regarded as the same variation. Intransitive verbs and transitive verbs are regarded as different variations. Also active and passive verb forms are regarded as different variations and documented in both forms if identified. *I* adjectives are few, and for that reason also documented as both adjectives and adverbs, with *ku* ending, if identified. The decision to document basic form, *masu* form, *te* form, *ta* form and can-form as the same variation was because of time mostly, but also because of space. The internal order of preference was basic form, *te* form, *ta* form and last *masu* form and can-form. However contextual factors were also taken into consideration, and there is nothing to say that none of the more preferred forms were found if for instance the *ta* form of a word is the one documented in the data.

The survey is intended to clarify qualitative features of metaphors with MONEY as target domain in the Japanese language. Therefore, as long as it is not mentioned specifically, there is no concern of metaphors number of occurrences in the corpus, in any of the results or attempts to provide an answer to the research question in this paper. Finally, this is a survey of written Japanese. Which means that conceptual mappings that might be expressed in spoken language only, are not part of the survey.

The Data

The one biggest source domain for metaphor if measured by number of different metaphors that are mapped from it to the target domain of MONEY, is PHYSICAL MOTION (see Appendix B). However, PHYSICAL MOTION was divided into independent physical motion and physical motion caused by human involvement. When this division is done, the source domain of LIQUIDS is equal in size to INDEPENDENT PHYSICAL MOTION, and these are the two biggest source domains, followed by the source domain of SIZE and PHYSICAL MOTION CAUSED BY HUMAN ACTION. Then comes VERTICALITY, and the source domain of HINDRANCE. These six source domains may be the most important source domains to define the metaphoric meaning of MONEY in Japanese. The other ten source domains were found to be used with a lesser amount of variation.

The two tables below list all sixteen different source domains that were used in metaphors with MONEY as target domain, that were identified in the data from the BCCWJ corpus. The source domains are listed together with sample metaphors. For the reason that the target domain is the concept of MONEY, as covered by the scope of the survey. There is no distinction between

okane and *shikin* as search terms, in any presentation of the data. All metaphors gathered in the searches, sorted in the same way, are listed in Appendix B.

Table 2. All source domains with sample metaphors

Search terms: okane ga, shikin ga

Japanese	Translation	Source domain
Chyūnyūsareru	Is poured into	Liquids
Ugokimawaru	Moves around	Physical motion
Hikiotosareru	Is pulled down	Motion by human act
Ōkii	Is big	Size
Atamauchi ni natta	Hit its head (to ceiling)	Verticality
Todokōtte	Is stagnant	Hindrance
Tamaru	Is gathered	Gathering
Tsukurare	Is made	Creating
Karamu	Is entangled	Physical states
Kokorobosoi	Is anxious	Mental states
Nigedasu	Runs off	Escape
Kisonshite	Is damaged	Destruction
Shōkasarete	Is digested	Food
Meate	Is the objective	Purpose
Fueru	Is propagated	Growing crop
Nete	Sleeps	Sleep
Kogetsuita	Was scorched	Burning

Source: Balanced Corpus of Contemporary Written Japanese

Table 3. The only exception from the main search

Search terms: okane to no, shikin to no

Japanese	Translation	Source domain
Tsukiaikata	Forms of social activity with	Human relations

Source: Balanced Corpus of Contemporary Written Japanese

Results

MONEY as Syntactic Topic

In Japanese the subject is usually marked by ga, but may also be marked by wa. However, the particle wa is generally referred to as the topic marker. Just like the particle wo was ruled out to limit the scope of the searches, some tentative searches also ruled out the particle wa. For the reason that the biggest test survey was extensive enough to give an indication of what metaphors there are that may be found after wa, five significant findings are presented here, before the actual results are discussed. This is to give an idea of what is lost from not including the particle

wa in the investigation. As it seems, if a metaphor is possible after MONEY as syntactic subject, then it will basically also occur after ga, and a lot of the data from okane ga and shikin ga do not seem to occur after wa.

The biggest test survey for the purpose of ruling out *wa*, was a survey of *okane wa* only, in *Publications* (1971-2005) in the corpus. Of three hundred and seventy nine displays in this test survey only one metaphor was found that is not part of the data. This was the following stretch of language:

```
10) okane wa ... tōketsusarete (BCCWJ)
```

okane wa tōketsusarete money PTCL freeze.pass

11) Example: The money is frozen for the time being. (not authentic example)

This is an interesting finding, because it entails MONEY IS A LIQUID and was expected to be found in the survey. Blockage of MONEY occurs in the data with some variation, and is sorted under the source domain of HINDRANCE. However, it does not occur as frozen liquid. This means that the *freezing* or *frozen* metaphor is used in Japanese, but the delimitation of the survey do not cover the lexical items of Japanese that are typically used together with this metaphor. Moreover, the test survey of *Publications* (1971-2005) in the corpus also showed that MONEY as syntactic topic will render phrases that are rhetorical but not conventional, such as: *Money is a form of communication*; *Money is a converged state of energy*. These two were the only examples in the test survey, but such constructions may be plentiful. Furthermore, the test survey of *Publications* (1971-2005) in the corpus on *okane wa* provided the two following proverbs:

12) Okane wa yoku to nari doku to nari. (BCCWJ)

Okane doku wa yoku to nari to nari. Money TOP greed PTCL become:GER poison PTCL become:GER 'Money turns into greed turns into poison.'

13) Okane wa tenka no mawarimono (BCCWJ).

Okane wa tenka no mawari-mono Money TOP under.heaven (lit.) GEN circulating-thing

'Money comes and goes.'

The conceptual mappings of the former are not found in the data, but the latter of these involves the conceptual mapping from PHYSICAL MOTION on the form of circulation onto the change of

ownership of MONEY. This conceptual mapping occurs in three different linguistic realizations in the data.

Source Domains Identified in the Data

The analysis was done taking into consideration metaphors charred purposes and how an abstraction of a metaphor may be ruled out as the metaphor entails a more specific abstraction. Importantly, all linguistic realizations of metaphors found in the survey occur once in the analysis. That is to say, metaphors that entail more than one abstraction are still documented as having one source domain. And in the analysis, linguistic realizations of metaphors were documented as having the source domains most significant for them. Some key points in the analysis with regard to source domains will be discussed in this section.

The three biggest source domains, LIQUIDS and those of PHYSICAL MOTION may be said to be used and named as is done conventionally in conceptual metaphor research. The same may also be said about the sours domains of VERTICALITY and SIZE. Importantly though, decisions about source domains were made to suit the purpose of the investigation, including the decision to divide PHYSICAL MOTION into two separate domains. It is the semantic content of the metaphors that is ground for these decisions.

LIQUIDS: MONEY IS A LIQUID is often realized in metaphors of motion. These are often expressions of money being invested or changing owner. However, different from metaphors that have PHYSICAL MOTION as source domain, MONEY IS A LIQUID is less abstract in that it includes the substance that is moving, or being moved. One of the metaphors from this source domain, is the only metaphor that was not gathered as data based on dictionary entries. This exception was found in the following stretch of language:

14) kyōikuhi ni mawsu okane ga sōyatte nenshutudekiruyō ni naru wake desu. (BCCWJ)

kyōikuhi	ni	mawasu	okane	ga	sōyatte	
tuition	PTCL	use	money	subj	In.that.wa	y-do.GER
nenshutsu	dekiru	yō ni	nar	и	wake	desu
sqeeze car	1	nr PTCL	bec	ome	reason	cop

'in that way it should be possible to put together money for the tuition.'

Nenshutusuru is a compound word that simply means *raise* or *put together* (money), with some difficulty. In an analysis though, the word can be divided into three morphemes.

15) Japanese: nen- shutsu- suru

English: twist; To make do

wring something
come out.

This suggests a conceptual mapping from *wring out* to *raise money*, which is also consistent with MONEY IS A LIQUID. This metaphor usually takes the particle *wo*, but was found in the survey because it ends with *dekiru*, which signifies that a verb *can* be performed. Verbs with this ending takes the particle *ga*. The metaphor entails MONEY IS A LIQUID, furthermore, it has shared purposes with metaphors of GATHERING. The choice of source domain is based two facts. First, the similarity with metaphors of GATHERING is limited to shared purposes. And second, it is the substance that is supposed to be wrung out that corresponds to MONEY, and this substance is unmistakably a liquid.

INDEPENDENT PHYSICAL MOTION: This source domain can be divided into straight line motion, circular motion, rolling motion, flying motion and events that entail physical motion.

PHYSICAL MOTION BY HUMAN ACTION: Metaphors from this source domain can be divided into transfer, sweeping, pulling motion and throwing motion.

SIZE: The source domain of SIZE mapped onto the target domain of MONEY, arguably, refers to the physical amount of coins and bills that corresponds to a certain value of money. In metaphors from this source domain, this amount can also increase or decrease in size. Examples of metaphors from this source domain are:

16) ōkii (big)

shikin ga ōkii to kinchō to iu ka kau no sae chūchoshisō desu. (BCCWJ) shikin ga ōkii to kinchō to iu ka kau

shikin ga ōkii to kinchō to iu ka kau no sae capital subj big PTCL nervous quot say or buy GEN just

chūcho-shisō desu

hesitation-do.looks.like cop

'if it is a matter of large capital one might get nervous and hesitate in buying.'

17) *fukureagari* (swell up)

shikin ga fukureagarisugiru (BCCWJ)

shikin ga fukure-agari-sugiru

capital subj swell-up-exceed

'capital will balloon out of proportion'

18) sakugensareru (be pared down)

sābisu no tame no shikin ga sakugensareru koto ni naru (BCCWJ)

sābisu no tame no shikin ga sakugensareru sevice GEN for.the.sake.of GEN capital subj cut.down-do:pass

koto ni naru

matter PTCL become

A key point in the analysis is that *reduction* in general is regarded as metaphor with SIZE as source domain. When capital is being *pared down* as in the example there is a cross domain mapping from the use of a sharp blade, but based on the purpose of the metaphor, SIZE is regarded as its source domain. In a metaphor such as *swell up* on the other hand it is much clearer that SIZE is the source domain, but in the analysis also an *increase* is in general regarded as metaphor with SIZE as source domain.

VERTICALITY: Metaphors from the source domain of VERTICALITY are common around concepts closely linked to money such as rates and prices. However, the source domain is also useful for metaphors with MONEY as target domain, often times because concepts like rates and prices are referred to, plainly as money. For instance in Japanese the word for *expensive* is homonymous with the word for *high*. And arguably this means that also *expensive*, or *takai*, involves a conceptual mapping. This mapping is sometimes used in Japanese, like in this example:

19) takai okane (BCCWJ)

expensive money

In Japanese, just like in English, something can be said to have been bought for expensive money. What happens in this example is that a price is referred to as the money that was used in the payment.

^{&#}x27;service capital will be pared down'

Falling and lowering motion are also included as metaphors of VERTICALITY. These are indeed forms of motion, but they are changes on the up down dimension, and in this they are different from the metaphors sorted under PHYSICAL MOTION.

HINDRANCE: There are eight different versions of metaphor from this source domain and all involve the mapping of some sort of physical hindrance or stagnation onto the preventing of changing the present state of a certain amount of money. Five of these are versions of fixation or stagnation, as in solidifying. But there is no version of money being frozen. The fact that they have shared purposes is what makes all these, metaphors of HINDRANCE.

GATHERING: The source domain of GATHERING is distinct from the source domain of CREATING, from which metaphors such as *making money* are mapped. GATHERING is the larger one, and has metaphors of *picking up*, *getting a hold of*, *gathering* and *taking out of circulation*. It is the conception of physically gathering money in these ways, that is understood to be part of the conception of gathering money as referred to in the sentences that these metaphors were gathered from.

Experiential Bases Identified in the Data

In this section, it is important to keep in mind that when conceptual metaphors come into existence, and are lexicalized the common ground of experience that is shared by the language's speakers, and the sense of solidarity that is experienced as new ways of using language are invented, are both part of this fundamental aspect of metaphor.

Some MONEY metaphors have a tendency to be based on non metaphoric conception, and some have a tendency to be based on metaphoric conceptual frames. However, because of the physical properties of coins and bills, MONEY metaphors are often based on non metaphoric conception, as well as metaphoric conceptual frames.

Just like sand or gravel, large amounts of small coins may actually behave similar to a liquid, when poured from a container. A hand full of coins can eventually behave similarly. This may be one non metaphoric base for MONEY IS A LIQUID. Otherwise, the stronger base for this metaphoric concept is arguably metaphoric conception of PHYSICAL MOTION. On the other hand, conception of physical motion that does not entail the metaphor MONEY IS A LIQUID is basic metaphoric conception based in physical experience only. The conception of coins rolling is arguably a strong non metaphoric base for metaphors of rolling motion. As opposed to, metaphors of for instance circulating motion, that do not rule out MONEY IS A LIQUID, which cannot be seen as

being based in non metaphoric conception only. One important base for circular motion is TRANSACTIONS OF MONEY ARE PHYSICAL TREATMENTS OF MONEY, which is a metaphoric concept that in turn has a direct non metaphoric base in the conception of physical money set into motion in ways referred to in the linguistic realizations of it. Furthermore, both wads of bills and piles of coins are higher the more value that is stored in them. This conception is one base for MORE MONEY IS UP that is not metaphoric, on the other hand MORE IS UP is arguably the metaphoric base for MORE MONEY IS UP. In a similar manner, MORE MONEY IS LARGE SIZE also has a non metaphoric base in physical amounts of physical money on a basic level. Finally, the conceptual metaphor PREVENTING TRANSACTIONS OF MONEY IS PREVENTING PHYSICAL MOTION has a clear tendency towards being based on metaphoric conception. Based on the data, metaphors from LIQUIDS, PHYSICAL MOTION and ESCAPE are arguably important in providing this metaphoric base.

In present times more than ever MONEY is changing its physical shape. Physical money has been complemented by credit cards and mobile apps, and is sometimes said to be disappearing completely in the future. As new words for handling money come into languages new metaphors will arguably reflect these changes in society. However, no such metaphors were covered by this survey.

The Metaphoric Meaning of Money in Japanese

The conventional conceptual metaphors that were identified in the analysis are all found in Appendix A. Naturally, the less central metaphors are the most interesting to identify. The conceptual metaphor MONEY IS PURPOSE is not central to the metaphoric meaning of money in Japanese, but must be said to say something about human cognition in modern society. MONEY IS PURPOSE is symbolic for what this investigation tried to achieve, in that it was not an expected finding, but fits perfect into the model of a metaphoric structure in human language that mirrors cognition and conception. The metaphor was identified in two different versions of linguistic realizations in the corpus, in sentences such as the one in this example:

20) Dōse Terii wa kimi no okane ga meate ni kimatteiru kara, (BCCWJ)

Dōse Terii wa kimi no okane ga meate At.any.rate Terry money subj objective TOP your GEN ni kimatteiru kara PTCL be.decided for.that.reason

'At any rate, Terry is only after your money,'

This partial sentence also translates as: *In any case, your money is for sure the objective for Terry*, and the metaphor is of course equally useful in English. One of the more peculiar metaphors identified is THE RELATIONSHIP TO MONEY IS THE RELATIONSHIP TO A FRIEND. This was identified in the expression:

21) *okane to no stukiaikata* (BCCWJ) relationship to money

Importantly, the more general word for relationship in the same syntactic context was not gathered as data:

22) okane to no kankei (BCCWJ)

The word tsukiaikata is best translated in informal style as *way of hanging out*, and would in more formal style be *form of social activity*, which leads to the specific entailment of this conceptual metaphor. On the other hand, a more expected metaphor was ECONOMIC LOSS IS MONEY BURNING. Importantly though, the only linguistic realization found does not involve fire. Instead, the expression gathered as data involve money being scorched:

23) shikin ga kogetsuita to iu koto ga hōdōsareta (BCCWJ)

shikin ga koge-tsuita to iu koto ga hōdō-sare-ta capital subj burn-attach:PAST ptcl say thing subj Report-do:pass-PAST 'it was reported that capital had been scorched'

The meaning involves that money is uncollectable and remains unpaid, and it is the receiver that is without payment. The phrase *kogetsuita* can also mean that the stock price has stopped moving, as in being burnt so that it is stuck to something.

MONEY THAT MUST NOT MOVE IS A SLEEPING BEING is another interesting example that comes from the phrase *funds/capital sleeps*:

24) juyō ga sukunai tame shikin ga sono aida neteshimau shi (BCCWJ)

jujō ga sukunai tame shikin sono aida ga demand subi little because capital subj that/it between neteshimau shi sleep:GER. completely fact/reason

'the capital will sleep during that time due to limited demand'

Money sleeps when it is kept as it is, in funds or shares, to prevent it from losing in value.

All conceptual metaphors identified in the data (see Appendix A) contribute to the metaphoric meaning of Japanese words for MONEY. This semantic meaning is not of the kind listed in dictionaries, but of the kind that is normally learnt through long term exposure of linguistic contexts where metaphors such as those listed in Appendix B are used purposefully, as well as linguistic contexts where these words are used purposefully according to the non metaphoric understanding of them.

Negative Information Motivating Metaphor

Metaphors from the source domains of LIQUIDS and PHYSICAL MOTION roughly make up half of all the metaphors found in the survey. The other half consists of fifteen significantly smaller source domains. If reviewing the second half, that also include metaphors from the relatively large source domains of SIZE, VERTICALITY, HINDRANCE and GATHERING there is a tendency for metaphors towards having a negative meaning. This tendency is basically not present in the first half of the data. However, in the first half, there is no tendency towards a particularly positive meaning either. Moreover, metaphors from LIQUIDS and PHYSICAL MOTION have a strong tendency towards shared purposes. Most of them are used to refer to transactions that run smoothly, or similar events. As mentioned in the discussion, MONEY IS A LIQUID is often realized linguistically in metaphors of motion, and based on shared purposes, there is a big difference here between metaphors from LIQUIDS and metaphors that involve physical motion from the source domain of VERTICALITY. This means that the source domains that are exceptions from the tendency in the data towards metaphors having a negative meaning have something in common between them.

Furthermore, given this distinction between the three biggest source domains and the rest, the source domains of SIZE and VERTICALITY are problematic with regard to the tendency of metaphors carrying negative information, for the reason that the metaphors from them are dependent on the situation they refer to, to a greater extent than those from the other source domains. However, seven of these twenty four metaphors may be said to have a inherently negative meaning. These are:

25) a. fukureagari	swell up	Only negative meaning. One hit
b. dabutsuku	be to big	Involves unwanted excess. Four hits
c. kyūgen	sudden reduction	Involves sudden change. One hit
d. gekigen	sharp reduction	Involves dramatic change. One hit
e. <i>takai</i>	High	Means expensive. Four hits
f. takaku naru	Becomes high	Means becomes expensive. One hit
g. soko wo tsuku	exhauste to bottom	Negative meaning. Thirteen hits

The other seventeen metaphors from these source domains may roughly be said to be positive or negative depending on the situation they refer to. But if these are counted, and the three biggest source domains are kept distinct, then as can be observed in *Table 3*., the smaller the source domain, the greater the rate of metaphors that have a inherently negative meaning.

Table 4.Number of metaphors that carry negative information from each source domain

Source domain	Number of Metaphors	Total	Negative Information	Total
Liquids	19		1	
Physical motion	25		1	
Motion by human act	12	56	2	4
Size	12		4	
Verticality	12	24	3	7
Hindrance	8		8	
Gathering	8			
Creating	3			
Physical states	2		1	
Mental states	2		2	
Escape	2		2	
Destruction	2		2	
Food	2		1	
Purpose	2			
Growing crop	1			
Sleep	1		1	
Burning	1		1	
Human relations	1	35		18

Source: Appendix B, Table 2.

The rate of negative metaphors in total is 25%, but if arranged by the size of source domains, then the rate raises as the source domains get smaller, from 7% in the first half to 29% in SIZE and VERTICALITY, and 51% in the smaller source domains.

The source domain of HINDRANCE is perfectly balanced by the source domain of GATHERING, from which metaphors have neutral to positive meaning, and the source domain of CREATING may be said to have only positive meaning. But the ten smallest source domains all have metaphors with neutral to negative meaning. This means that 61% of all identified source domains have metaphors that range from having neutral to particularly negative meaning, if judged by inherent properties. While only GATHERING and CREATING (11%) may be said to have metaphors with particularly positive meaning in this regard.

The purpose of the survey was to find clues to human conception of MONEY, in linguistic realizations of conceptual mappings. Moreover, the data is based on MONEY in the subject position of Japanese sentences with only one exception, which means that this conclusion is based on the syntactic properties of the language. That is to say, the data suggests that negative information motivates the use of metaphors from source domains other than LIQUIDS, PHYSICAL MOTION, SIZE and VERTICALITY when money is the syntactic subject.

Reflections of social mentality. Presumably, in the mental system of evaluation that is culturally determined and partially peculiar to the Japanese culture, money is regarded as something desirable. Because of this, when something bad happens that concerns money, attention is drawn to this matter, to make it important. On the one hand, conception is further developed around things that are regarded as important. On the other, human beings will want to communicate matters about them. Consequently, the experience of bad things happening to money, forges conceptual mappings. As these matters are then communicated between human beings, the conceptual mappings become lexicalized.

Negative information as a potential motive for metaphor is therefore potentially a reflection of the culturally determined system of evaluation in the Japanese language.

Language constraining conception of money. If it is so, that the grammar of a language is forged by a need to express things that are understood as real in the common consensus of a culture, then, as the language is used, the grammar of the language will provide patterns that express these things. And in a corpus survey on conventional conceptual metaphors, the syntactic properties of the language will be found to govern which are, and which are not, conventional

expressions of conceptual mappings in a given syntactic context. Consequently, the case may be interpreted to suggest, that in the multilayered structure of human language, there is a tendency of the grammatical structure governing the metaphorical structure. Both these structures have arbitrariness and both are in part forged by experience, and as metaphoric conception is lexicalized and cemented in the vocabulary of a language, it is also further cemented in the grammatical structure of this language. And hence, in Japanese when MONEY is the syntactic subject, particularly positive metaphoric concepts do not, to the same extent, come naturally to a writer as do expressions of negative metaphoric concepts, when positive information is to be expressed.

Grammar is the deeper structure of the two, and the metaphoric structure involves both cross domain mappings in conception and the vocabulary items that refer to them. Negative information as potential motive for the use of metaphors from source domains other than LIQUIDS, PHYSICAL MOTION, SIZE and VERTICALITY in this particular syntactic context, may in this regard be interpreted as a case of language constraining social mentality not only on the level where the structure of vocabulary governs the metaphoric structure, but also on the level where the grammatical structure governs the metaphorical structure. That is to say, on the first mentioned level, metaphor is possible if there is a word for it, and on second mentioned level, metaphor is motivated by particular grammatical constructions. The effect on this second level is plausible based on the results of this investigation, in a perspective of the idea that language constrains social mentality.

Conclusion

In conclusion, what conceptual metaphors there are in the Japanese language that has MONEY as their target domain, must be seen as, to some extent, having been answered. If reviewing the data, the main impression is that the bigger source domains account for the core of the metaphoric meaning of money in Japanese. Moreover, the impression is that these are common as source domains for money, in the world's languages. However, the realizations of the metaphors from them, may to an extent be peculiar to the Japanese language. As the source domains get smaller, the degree to which the metaphors from them become periphery to the metaphoric meaning of MONEY increases, and the impression is that the survey cannot be said to have established the more periphery features of the metaphoric meaning of the concept of MONEY in the Japanese language.

However, to the extent that the conventional conceptual metaphors identified in the data (see Appendix A) are common to other languages, they are also taken for granted by speakers of these languages. But what this paper has shown is that to the extent that they are not, these conceptual metaphors provide insight into the semantic meaning of Japanese words for MONEY, that is part of the common consensus of how money is conceptualized in the Japanese culture.

Further Research

The limited scope of the survey is clearly visible in the four last source domains BURNING, GROWING CROP, SLEEPING, and PURPOSE. The four metaphors from these source domains were few in numbers and were only realized in one form in corpus. Furthermore, it was established in the survey that all possible metaphors, given the delimitations chosen by choosing the search terms, cannot be found in the BCCWJ corpus. However, the impression was that the results are significant for the answer to the research question.

A more exhaustive survey could look further into the BCCWJ corpus, using a wider range of search terms. A first next step to build upon the raw data gathered in this survey, would be to rerun the searches with the particle *wo*, and then make decisions concerning new lexical items for MONEY. One consideration concerning the finding that negative information may motivate the use of metaphor is that this may be found to be consistent with data that involves *wo*. However, it might be so, that a wider range of search terms to more thoroughly cover the concept of money might contradict this finding. Moreover, in metaphoric expressions that involve positive information concerning MONEY, the lexical item that refers to MONEY might be the one that is understood metaphorically, and a survey of such lexical items would arguably be an interesting point of reference. Moreover, metaphors that have an experiential base in modern measures of payment, such as credit cards and mobile apps may equally be of this kind, e.g. *pay with plastic*.

Summary

This paper is a study of the concept of money in conceptual metaphors in the Japanese language, using methodology based on the contemporary view on metaphor within cognitive linguistics, as advocated by Lakoff. The motivation for the study was the relationship between language and culture. In conceptual metaphor theory it is sometimes pointed out that a language provides clues to the culture that gave birth to it. However, in discussions of the importance of metaphoric concepts for human cognition, there is generally a focus on the human being and the relationship between language and cognition. For this reason, the study was also based on theory

concerning the relationship between language and culture, wherein the focal point was that of how language is active in fostering social mentality, and that social mentality is reflected in the language of a culture. Taking this wider perspective into consideration, and the systematic character of the metaphoric structure of language as understood in conceptual metaphor theory, the paper attempts to provide insight into any peculiar features of the concept of MONEY in the Japanese language, by identifying its metaphoric meaning.

In order to do this, a qualitative corpus survey was set up, to gather samples of money metaphors from authentic material. The open source *Balanced Corpus of Contemporary Written Japanese* was chosen for the purpose, and the survey was utterly one of 2549 authentic Japanese sentences. In the analysis, metaphors were arranged by their source domains and a template of conventional conceptual metaphors that may be regarded as defining the metaphoric meaning of money in Japanese was created.

Results indicate that the metaphoric meaning of money in Japanese was well established by the survey, based on how the size of the source domains indicated their importance for the matter. However, it was equally established that the core of the metaphoric meaning of a concept such as MONEY is close to universal across cultures, and that the research question was more ambitious than could plausibly be seen as having been fully answered, with regard to the more periphery metaphoric meaning of this concept.

Close analysis of the data indicate that conceptual metaphors that define MONEY in Japanese when MONEY is the syntactic subject, seem to be motivated by the fact that they carry negative information. This finding was proposed to be connected to the relationship between language and social mentality, but it was more than anything a clear tendency in the collected data. One consideration was that the proposed connection to the relationship between language and social mentality, may be contradicted by a more extensive survey.

References

- Cameron, L. & Low, G. (1999). *Researching and Applying metaphor*. Cambridge, England: Cambridge University Press.
- Dahl, Ö. (2007) Språkets Enhet och Mångfald [The Unity and Diversity of Language]. Lund, Sweden: Studentlitteratur.
- Haga, Y. (1985). Ningen Gengo Shakai [Human Language Society]. Tokyo, Japan: Ningen no kagaku sha.
- Kreiner, J., Möhwald, U. & Ölschleger, H. D. (2004). *Modern Japanese society*. Boston, USA: Brill.
- Lakoff, G. (1987). Women, Fire, and Dangerous Things: What categories reveal about the mind. Chicago, USA: University of Chicago Press.
- Lakoff, G. (1993). *The Contemporary Theory of Metaphor*. In A. Ortony, *Metaphor and Thought* (pp. 202-251) Cambridge: Cambridge University Press.
- Lakoff, G. & Johnson, M. (2003). *Metaphors we live by*. Chicago, USA: University of Chicago Press.
- Seta, Y. (2009). *Metafā ni tsuite* (On metaphor). *Bulletin of Graduate school of education*, *Okayama University*, 142. 49-59. Retrieved from http://ousar.lib.okayama-u.ac.jp/16078
- Shibata, T. (1978). *Shakaigengogaku no Kadai [Topics of Sociolinguistics*]. Tokyo, Japan: *Kabushikigaisha Sanseidô*.
- Shimamura, M. (1999). *Kyakkanshūgiimiron to ninchishūgiimiron no paradaimu* (Paradigms of Objectivist and Cognitive Semantics). *Journal of business administration of Kansai Gakuin University* 46(4), 31-45. Retrieved from http://kgur.kwansei.ac.jp/dspace/handle/102 36/1915
- Takamizawa, H., Itō, H., Hunt-Kageyama, Y., Ikeda, Y., Nishikawa, S. & Onmura, Y. (2004). Shin hajimete no nihongo kyōiku kihon yōgojiten [New, First Japanese language education basic dictionary of terminology]. Tokyo, Japan: Kabushikigaisha Asuku shyuppan.
- Trudgill, P. (2000). An Introduction to Language and Society. London, England: Penguin Books.
- Zhong, Y., & Inoue, N. (2013). *Nihongo ni okeru ue shita metafâ no taikei kōsei oyobi sono tokuchō in kan suru kōsatsu* (A Study of the Systemic Structure and Characteristics of Japanese Up-down Orientational Metaphors). *Studies in languages and cultures*, *30*, 13-26. doi: 10. 15017/26311

Appendix A

Conventional conceptual metaphors of Japanese

MONEY IS A LIQUID

MONEY IS WATER

MONEY IS AN INDEPENDENTLY MOVING PHYSICAL ENTITY

TRANSACTIONS OF MONEY ARE PHYSICAL TREATMENTS OF MONEY

ACQUIRING PHYSICAL MONEY IS AN ACT OF PULLING

INVESTING MONEY IS AN ACT OF THROWING

MORE MONEY IS LARGE SIZE

LESS MONEY IS SMALL SIZE

DECREASING MONEY ASSETS IS CARVING WITH A SHARP TOOL

MORE MONEY IS UP

LESS MONEY IS DOWN

MONEY ACCUMULATED PAST A LIMIT IS A BEING HITTING ITS HEAD TO THE SEALING

TO USE ALL MONEY IS SCRAPING THE BOTTOM

PREVENTING TRANSACTIONS OF MONEY IS PREVENTING PHYSICAL MOTION

PREVENTED TRANSACTIONS OF MONEY ARE STAGNATED PHYSICAL MOTIONS

PREVENTED TRANSACTIONS OF MONEY ARE SOLIDIFIED PHYSICAL ENTITIES

NON LIQUID ASSETS ARE STUCK BILLS AND COINS

ACCUMULATING MONEY IS GATHERING

ACCUMULATING MONEY IS SQUEEZING LIQUID OUT OF CLOTH

ACCUMULATING MONEY IS STOCKPILING GOODS

CONCERNS OF MONEY IS PHYSICAL ENTANGLEMENT

SHORTAGE OF MONEY IS PHYSICAL PRESSURE

EARNING MONEY IS CREATING SOMETHING PHYSICAL

INVESTING MONEY ABROAD IS LETTING SOMETHING ESCAPE

ECONOMIC LOSS IS PHYSICAL DESTRUCTION

ECONOMIC LOSS IS MONEY BURNING

GROWTH OF MONEY ASSETS IS PROPAGATION OF PLANTS

MONEY THAT MUST NOT MOVE IS A SLEEPING BEING

MONEY IS PURPOSE

THE RELATIONSHIP TO MONEY IS THE RELATIONSHIP TO A FRIEND

Author's analysis

Appendix B

All metaphors arranged by source domain

Actual Japanese search terms: <お金が> / <資金が>

Japanese	Transcription	Translation	Source domain
流れる	Nagareru	Flows	Liquids (19)
流されて	Nagasarete	Is poured	-
流れ出しました	Nagaredashimashita	Flowed out	-
流出する	Ryūshyutsusuru	Flows out	-
流れ込み	Nagarekomi	Lows in	-
流入する	Ryūnyūsuru	Flows in	-
還流して	Kanryūshite	Flows back	-
逆流して	Gyakuryūshite	Flows back	-
注入される	Chyūnyūsareru	Is poured into	-
つぎ込んで	Tsugikonde	Pour into	-
つぎ込まれる	Tsugikomareru	Is poured into	-
じゃぶじゃぶして	Jabujabushite	Dabbles	-
浮く	Uku	Floats	-
潤い	Uruoi	Is moist	-
捻出出来る	Nenshutsudekiru	Can squeeze out	-
枯渇する	Kokatsusur	Dries up	-
湯水のごとく	Yumizu no gotoku	As (hot and cold) water	-
プールされ,	Pūrusare	Is pooled	-
湧いて	Waite	Gushes out	-
出る	Deru	Comes out	Physical motion (25)
出される	Dasareru	Comes out	-
出回って	Demawatte	Appears in circulation	-
入る	Hairu	Comes in	-
入り込んで	Hairikonde	Comes in	-
届く	Todoku	Arrives	-
戻る	Modoru	Returns	-
行く	Iku	Goes	-
動く	Ugoku	Moves	-
渡る	Wataru	Crosses	-
移動する	Idōsuru	Moves	-
動き回る	Ugokimawaru	Moves around	-
回る	Mawaru	Rotates	-
回される	Mawasareru	Is rotated	-
回り回って	Mawarimawatte	Goes around and around	-
回帰して	Kaikishite	Revolves	-
循環する	Junkansuru	Circulates	-
循環されます	Junkansaremasu	Is circulated	-
回転しなくなった	Kaitenshinakunatta	Stopped rotating	-
転がって	Korogatte	Rolls	-

まなりにする。	Vorogarikomu	Dollein	
転がり込む	Korogarikomu	Rolls in	-
飛んで	Tonde	Flies	-
飛び交って	Tobikatte	Flies about	-
ぶっとんで	Buttonde	Is blown away	-
駆け巡り、	Kakemeguri	Goes around	-
振り込まれる	Furikomareru	Is transferred	Physical motion- (12)
送られて	Okurarete	Is sent	by human action
払われた	Harawareta	Was swept away	-
引く	Hiku	Pulls	-
引き出される	Hikidasareru	Is withdrawn	-
引き落とされる	Hikiotosareru	Is pulled down	-
引きおろせない	Hikiorosareru	Cannot be pull down	-
投じられた	Tōjirareta	Was thrown	-
投入される	Tōnyūsareru	Is thrown into	-
投下され、	Tōkasare	Is thrown down	-
捨てる	Suteru	Throw away	-
捨てられて	Suterarete	Is thrown away	-
大きい	Ōkii	Is big	Size (12)
大きくなる	Ōkiku naru	Gets bigger	-
増える	Fueru	Increases	-
増大する	Zōdaisuru	Increases	-
増加する	Zōkasuru	Increases	-
膨れ上がり	Fukureagari	Swells up	-
だぶつく	Dabutsuku	Is to big	-
減少する	Genshōsuru	Reduces	-
目減りして	Meberishite	Reduces	-
削減される	Sakugensareru	Is pared down	-
急減	Kyūgen	Sudden reduction	-
激減をして	Gekigen wo shite	Decreases dramatically	-
高い	Takai	Is high	Verticality (12)
高くなる	Takaku naru	Gets higher	-
上乗せして	Uwanoseshite	Puts as extra on top	-
上乗せされる	Uwanosesareru	Is put as extra on top	-
上限に張りついて	Jōgen ni haritsuite	Touches the upper limit	-
頭打ちになった	Atamauchi ni natta	Hit its head (to ceiling)	-
UP しました	Appushimashita	Went up	-
上下して	Jōgeshite	Goes up and down	-
底をつく	Soko wo tsuku	Exhaust to the bottom	-
おりる	Oriru	Descends	-
減る	Heru	Sinks	-
落ちる	Ochiru	Falls	-
固定される	Koteisareru	Is fixed	Hindrance (8)
固定化する	Koteikasuru	Fixates	-
固定化されて	koteikasarete	Is fixed	-
滞って	Todokōtte	Is stagnant	-

滞留する	Tairyūsuru	Is held up	-
停滞して	Teitaishite	Is stagnant	-
拘束される	Kōsokusareru	Is fettered	-
詰まって	Tsumatte	Is stuck	-
取れる	Toreru	Grab	Gathering (8)
つかめる	Tukameru	Grasp	-
手に入る	Te ni hairu	Come into one's hands	-
着服される	Chakufukusareru	Is put on (clothes)	-
集まる	Atsumaru	Is gathered	-
溜まる	Tamaru	Is gathered	-
蓄積されて	Chikusekisarete	Was stockpiled	-
回収できる	Kaishyūdekiru	Take out of circulation	-
つくられ、	Tsukurare	Is made	Creating (3)
出来た	Dekita	Was made	-
造出され	Zōshutsusare	Is created	-
絡む	Karamu	Is entangled	Physical states (2)
逼迫する	Hippakusuru	Pressures	-
心細い	Kokorobosoi	Is anxious	Mental states (2)
心細くなって	Kokorobosoku natte	Becomes anxious	-
逃げ出す	Nigedasu	Runs off	Escape (2)
逃避する	Tōhisuru	Escapes	-
崩壊で	Hōkai de	Collapses	Destruction (2)
毀損して	Kisonshite	Is damaged	-
消化されて	Shōkasarete	Was digested	Food (2)
くさる	Kusaru	Goes rotten	-
目当て	Meate	Is the objective	Purpose (2)
目的	Mokuteki	Is the objective	-
殖える	Fueru	Is propagated	Growing crop (1)
寝て	Nete	Sleeps	Sleep (1)
焦げついた	Kogetsuita	Was scorched	Burning (1)

Source: Balanced Corpus of Contemporary Written Japanese