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(IR)REGULARITY OF CONCEPTUAL EXPANSIONS IN ADJUNCT NOMINALS

1 INTRODUCTION

When a nominal expression designates an entity which is beyond the range of, and is contiguous to, its literal referent, it is regarded as an instance of metonymy. Here we refer to this referential shift as a conceptual expansion of nominals. One problem to be dealt with in this field of research is to identify the licensing conditions under which this nominal expansion is allowed. This paper claims that metonymical expansions are readily observed in argument positions rather than in adjunct positions, and that conventionality overrides the distinction in argument status.

However, there are exceptions to these general tendencies, and we need to look into the counterexamples and the principles licensing the behavior of irregular cases. We will also need to investigate some common feature the exceptions share with the regular type of conceptual expansions, as long as all the instances are the realization of the same conceptual operation of expansion.

In this article, Section 1 discusses the licensing conditions of conceptual expansions in general, and it also briefly discusses a similar approach taken by Waltereit (1999). Section 2 deals with exceptional cases against the general tendencies found in the first section, namely, causal adjuncts, and we look into the distributional properties of the exceptions. Section 3 considers the motivation for the irregular conceptual expansions, making use of the restrictions on different types of textual coherence presented in Kehler 2002. Section 4 investigates some commonality among all the cases of expansions including the exceptional class of instances. More specifically, a locality condition is to be examined regarding the occurrence of conceptual expansions. Section 5 summarizes the whole argument.

2 GENERAL PRINCIPLES GOVERNING CONCEPTUAL EXPANSIONS

2.1 Argument/adjunct asymmetries

As exemplified in (1a), the vehicle or the linguistic expression functions as a reference point (Langacker 1993: 29) for referring to another designatum in a contiguous relation with that of the vehicle. This article refers to this referential shift as *conceptual expansion*, which is a designation of a referring expression beyond the range of, and contiguous to, its literal referent.¹ Here, *the soup* refers to the burner heating the soup. Yet, this metonymical expansion is not always attainable. Even if we know that the soup is simmering on fire, (1b) means that the soup, not the fire, is regarded as the possible cause of danger (like a burn). Leaving flammables around the soup in (1c) will be dangerous, not because they might catch fire from the burner heating the soup, but from the content of the soup itself. But this is not a likely thing to happen. A natural way to give an instruction will be (1d), referring directly to the fire, when the nominal is located in an adjunct position.²

- (1) a. Turn off the soup. (the soup = the burner heating the soup)
(Seto 2005: 148)
b. Don't play around by the soup.
c. ?*Don't leave flammables by the soup.
d. Don't leave flammables by the fire

This example illustrates that the metonymical expansion is not always plausible, and that the contexts under which conceptual expansion is attained should be somehow delineated.

Now let us consider (2), another case of metonymical expansion. The direct object *door* in (2a) refers to the person at the other side of the door, but in the adjunct position of (2b), the same noun phrase cannot point to the person in the same location. Even when *the door* is coordinated with another person (Mary) so that the parallelism requirement enhances the plausibility of a human referent, as in (2d), still it cannot refer to the person at the other side. In this position, we need to make use of a direct reference to the person, as in (2e).

- (2) a. Answer the door.
(the door=the person at the other side of the door)
b. *John explained the situation loudly for the door.

¹ In this paper, instances of active zone-profile discrepancy (Langacker 1984, 1993: 31) will not be considered, since they do not involve any expansion of the designation, but the activation of part of the referent.

(i) The dog bit the cat. (e.g., The dog's teeth bit the portion of the cat's tail extending from 6 to 12 centimeters from the tip.)

(ii) the arrow in the tree (e.g., the tip of the arrow in the tree trunk)

² Symbols of gradience like * and ? are used to show acceptability, and not grammaticality. Theoretically, any vehicle can be conceptually connected to any referent, so the conceptual expansion should not be treated as a matter of grammaticality. But there must be some degree of ease of connection, and I would like to deal with it.

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(*the door=the person at the other end)

- c. John explained the situation loudly for Mary.
- d. *John explained the situation loudly for Mary and for the door.
- e. John explained the situation loudly for Mary and for the person at the other side of the door.

Some more examples follow to the same effect: *A commercial for the great outdoors* can be expanded to refer to a character featured in the commercial in (3a), while the same nominal phrase in an adjunct cannot be expanded as in (3b), and it has to be located inside a locational adverbial phrase as in (3c) so that the parallel interpretation between the subject and the adjunct nominal will be circumvented.

- (3) a. He looked like a commercial for the great outdoors.
(a commercial=a character in a commercial)
- b. ??/*?I want to rough it like a commercial for the great outdoors.
- c. I want to rough it like IN a commercial for the great outdoors.

The kettle in (4a) refers to water contained in the kettle, but this interpretation is not likely to obtain in (4b). I do not claim that *the kettle* in this sentence can never be expanded to refer to its content. But a more prominent interpretation is the one in which I hit and tried to extinguish the fire by using the kettle *per se* as an instrument. This literal interpretation turns up as the first choice and makes the expanded reference less likely. If we would like to describe the situation where I used the water in the kettle, (4c) is more suitable.³

The table in (5a) refers to things left on the table, rather than the table itself. The same nominal in (5b) is an adjunct designating a physical entity, and its reference is not expanded. The same observation applies to (6) and (7). (6b) does not mean that John erased the signature out of the scribbles on the blackboard. If that is the intended interpretation, there must be some other scribbles left over on the blackboard, but in (6b) the signature may be the only thing written on the blackboard. This nominal only designates the physical entity itself as a location, rather than words and signs written on it. (7b) sounds strange when compared to a more natural counterpart in (7a). The plausibility of literal reference to the door leads to an unnatural scene evoked in the former case. In all the examples from (5) to (7), the combination of the same predicate and the same noun phrase does not lead to the same explication of the nominals and the difference lies in the positioning of the underlined noun phrases, that is, whether they are arguments or not.

- (4) a. The kettle is boiling. (the kettle = water in the kettle)

³ As demonstrated in section 1.2, conventionality plays a crucial role in the availability of expanded reference of adjuncts. The association between a kettle and water (its content) is very strong so that some people find (4b) perfectly acceptable. For them the conventionality of the expansion is strong enough to override the distinction in argumenthood. The variability in the acceptability of adjunct expansions seems to reflect the degree of conventionality.

- b. ?? I put out the fire with the kettle. (the kettle =water in the kettle)
 - c. I put out the fire with the water in the kettle.

- (5)
 - a. John cleared **the table**.
(the table = things left on the table)
 - b. John cleared the trash, along with **the table**.
(*the table = things left on the table)

- (6)
 - a. John erased **the blackboard**.
(the blackboard=scribbles on the blackboard)
 - b. John erased the signature off/from **the blackboard**.
(*the blackboard=scribbles on the blackboard)

- (7)
 - a. John answered **the door**.
(the door= the person on the other side)
 - b. ??John answered “Yes” in response to **the door**.
(??the door=the person on the other side)

From the above-mentioned examples, we obtain the following generalization.

- (i) Arguments lexically selected by the predicate of a sentence are more likely to become the target of conceptual expansion than adjunct elements.

Note that (i) does not claim that arguments are necessarily expanded. It only states that when an expansion is necessary, it will be more readily attained in argument positions than in adjuncts.

Arguments are salient entities in a clause and therefore, the processing effort needed for the identification of an appropriate referent, suitable for the particular context in which they are employed, should be allotted to those entities, rather than to adjuncts in the periphery of the clause. Literal reference requiring no additional processing effort is readily selected in those positions which are regarded as peripheral. In short, in accordance with the level of saliency, our attention should be distributed, and the effort needed for the search of an appropriate referent is to be assigned in a parallel manner. Ontological saliency of a vehicle of metonymy (reference point) is sometimes claimed (Langacker 1993, Handl 2010), but in addition to this kind of saliency, it is preferable to bestow syntactic prominence on the vehicle for the proper assessment of its intended referent.

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2.2 *Conventional conceptual expansions*

We have at the same time seeming counterexamples to the generalization in (i), as the following shows.

- (8) a. **Wall Street** is in a panic. (Wall Street = financial circles of the United States) (Lakoff & Johnson 1980: 38)
 b. We haven't got any reaction yet from **Wall Street**.
- (9) a. We never forget **Pearl Harbor**. (Pearl Harbor = the battle in Pearl Harbor)
 b. My father was seriously injured in **Pearl Harbor**.
- (10) a. We need a better **glove** at third base. (glove = player) (Lakoff & Johnson 1980: 38)
 b. We could win the league championship with a better **glove** at third base.
- (11) a. **Shakespeare** is my favorite. (Shakespeare = Shakespeare's works)
 b. Roughly speaking, there are three chronological periods in **Shakespeare**.

Conceptual expansions in these cases are implemented irrespective of the argument/adjunct distinctions observed in the examples of the previous section. They are conventional enough to nullify the distinction in saliency, and we can get an easy access to the intended meaning without any contextual support. Conventional expansions may well be regarded as falling into the category of literal reference.

At some point along the cline of conventionality, a conceptual expansion will no longer be an instance of expanded reference, and should be treated as literal. But for the sake of convenience, we would like to take the simple stance of segregating conventional and unconventional expansions as two types of categories of expansion. From the examples presented above, we have the following second generalization regarding the plausibility of a conceptual expansion.

- (ii) Conventionality nullifies the distinction in argument status of the target of expansion.

This generalization means that conventionality enhances the ease of access to a particular designation, and it alleviates the cost of searching for a suitable referent in the case of participants with smaller amount of saliency in the clause.

2.3 Waltereit (1999)

As far as I know, grammatical restrictions on the licensing of metonymy have been looked into in the literature only by Waltereit (1999). He proposed a hierarchy of *Direct Object* > *Subject* > *Other* with reference to metonymies in verbal semantics, claiming that the metonymical reference shift is most readily observed in the direct object position. When the direct object is not available, the subject will be selected as the target of metonymy, and other arguments may be affected in very few cases.

It is true that direct objects are ready targets of metonymical expansions, but in order to ascertain the validity of the hierarchy, we need to find cases where the subject, which should be metonymically interpreted, cannot be referentially expanded because of the direct object. As Waltereit himself admitted, this hierarchy is not definitional, and yet if we only find cases where direct objects in transitive clauses and subjects in intransitive clauses are ready targets of expansion, and if the direct object does not show any blocking effect against the expansion of the subject, then there seems to be little point in setting up the hierarchical order between these two arguments. If this were the case, this would simply show that direct arguments (both the subject and the direct object) are ready targets of metonymical interpretations. In actuality, it does not seem to be the case that direct objects block the expansion of the subjects, as the following examples show.⁴

- (12) **La soupe aux poisons** n'a pas donné de pourboire.
 (orderer of La soupe)
 [The fish soup didn't leave a tip.] (Waltereit 1999: 234)
- (13) a. **The flute** is having a cold today. (player of the flute)
 b. **The White House** isn't saying anything.
 (officials in the U.S. government)
 (Lakoff and Johnson 1980: 38)
 c. **Some new blood** may change the whole situation.
 (some new people)
 d. **The Times** didn't ask any question at the press conference.
 (reporter from The Times)
- (14) a. John is absent today from the rehearsal, along with **the flute and the trumpet**.
 b. We haven't got any positive reactions other than the one from **the White House**.
 c. In addition to **some new blood**, we need to think seriously about the reformation.
 d. All reporters were present at the press conference except **The**

⁴ Waltereit basically examined French, and claimed that the same reasoning would apply to other languages.

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Times.

- (15) a. **Table 7** walked out without paying, as well as **the cheeseburger!**
 b. **Table 8** walked out without paying, as well as **table 10!**

A referential shift in a restaurant frame is easily attained even in the subject of a transitive clause, as (12) shows. Similar cases in transitive clauses are also attested, as in (13). The conventionality of these cases is confirmed by the availability of the same explication in adjunct positions, as (14) shows. The reference to an orderer by the ordered dish is also a conventional strategy in a restaurant frame, and therefore, the referential relation is maintained irrespective of the argument status of the target of expansion, as in (15a). (15b) shows that the strategy of referring to customers by the number of their table is also very conventional in this frame, so that this referential shift is available irrespective of the argumenthood of the nominals in question.

Waltereit presented (12) as an exceptional case to his hierarchy, but it seems easy to find conventional cases which override the hierarchy. These examples indicate that conventionality should be a more crucial factor controlling the plausibility of a conceptual expansion.

Next we look at the alternation between agent and instrument in the transitive subject position illustrated in (16), which was introduced by Waltereit as a seeming counterexample to his generalization.

- (16) a. Marie ouvre la porte avec la clé.
 [Marie opens the door with the key.]
 b. La clé ouvre la porte.
 [The key opens the door.] (Waltereit 1999: 246-247)

In this alternation, the instrument subject is construed as referring to the agent. This metonymical expansion of the subject is implemented in the presence of the direct object. Yet, they are so regular and systematic, applicable to any action verb, that the alternation is claimed not to constitute a particular construction. Waltereit assumes that it is a general grammatical process independent of individual verbs, and therefore it cannot be considered an instance of polysemy dependent on a specific syntactic arrangement.

However, the granularity of constructions varies from the very schematic to the very specific, so that it seems to be rather difficult to treat only this case as a general process, different from other types of verbal polysemy. Moreover, we have some other types of sentences which violate the hierarchy, and instrumental subjects are not the only exceptions. For an illustration, there are temporal and locational phrases acting as subjects in transitive clauses with a class of perception verbs like *see*, and *witness*, as in (17). These subjects can be alternated with human agents living in the period of time and location specified. Similar constructions are also available in

French, as in (18).

- (17) a. September 1991 saw an increase of 18% in undergraduate entry into Semester 1 course.
(People saw an increase of 18 % ... in September 1991.)
[BNC HCG]
- b. The 19th century witnessed the evolution of public and saloon bars.
(People witnessed the evolution ... in the 19th century.)
[BNC AOB]
- c. The city of Worcester witnessed the beginning and the end of the bloody revolution.
(People witnessed the beginning ... in the city of Worcester.)
[BNC K1D]
- (18) a. La ville de Paris a assisté à la révolution sanglante.
[The city of Paris witnessed the bloody revolution.]
- b. Le 19ème siècle a vu se développer plusieurs modèles,
- [The 19th century saw some models develop, ...]

For another illustration, we take up a case like (19) and (20): the agents and the project in which they are involved can alternatively appear in the subject position of these transitive clauses. Therefore, subjects in (19a) and (20a) are instances of conceptual expansion, though direct objects are present.

- (19) a. The study (The report / The research) showed (found / demonstrated) the following results.
b. The researchers involved in the study showed (found/demonstrated) the following results.
- (20) a. L'étude (Le rapport / La recherche) a montré (trouvé / démontré) les résultats suivants.
b. Les chercheurs impliqués dans l' étude a montré (trouvé / démontré) les résultats suivants.

These alternations seem to be more restricted than the instrument subject construction as regards the number of possible verbs, since constructions like (17) are associated with perception verbs (e.g., *see, witness, watch, find, hear, listen, feel*) and (18) is constructed with cognition verbs (e.g., *show, find, reveal, suggest, confirm, indicate, estimate, report, describe*). Yet they still counterexemplify the hierarchical analysis.

One more problem for the hierarchy is (21).

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- (21) a. *Je me préoccupe. [I worry myself.] (Waltereit 1999: 243)
 b. Je me préoccupe sans raison. [I worry myself without reason.]
 c. *Elle se choque. [She shocks herself.]
 d. Elle s'est choquée à plusieurs reprises.
 [She shocked herself a number of times.]

Waltereit explains that the subject in (21a) should be expanded to *my health* or some other specific reason of my worry, but this metonymical expansion is blocked by the direct object clitic *me*. This is thought to be the reason for the inappropriateness of the sentence. The same story applies to (21c). If this reasoning is on the right track, however, the addition of adjunctive adverbial phrases or some change in the time marking should not affect the acceptability, since these changes have nothing to do with the nature of the subjects or the objects. In actuality, the oddness of (21a, c) lies in the lack of ample contextual support, rather than in the metonymical asymmetry between subject and object, as the enhanced acceptability of (21b, d) shows. The same observation holds with regard to English, and the weirdness of (22) vanishes once the adverbial phrases in the parentheses are added.

- (22) a. You worried yourself ??(for no reason).
 b. She shocked herself ??(repeatedly).

All the examples above show that the priority to be ceded to the direct object is not warranted. It is true that direct objects in transitive clauses are ready targets of metonymical expansion, but the hierarchical priority ceded to direct objects over subjects does not necessarily follow.

Moreover, oblique arguments can sometimes be the target of expansion as in (3). If the hierarchy of *Direct object* > *Subject* > *Other* predicts that the metonymical expansion of the subject is difficult when the direct object is present, the same precedence must apply to the combination of a subject and an oblique. The expansion of oblique arguments should be blocked by the subject, and since subjects are basically present in all sentences, the expansion of oblique arguments is doomed to failure. But this story does not hold.⁵

In conclusion, the argument/adjunct asymmetry is enough for characterizing the basic distinction of the plausibility of conceptual expansions, without proceeding further to give priority to some particular grammatical function like subject and direct

⁵ Suppose you visit Mme Tussaud's wax museum and see Ringo Starr looking at his own statue. The following sentence's pragmatic plausible explication would be that the statue hit the real Ringo, but this reading is not possible. The only possible reading is that the real Ringo hits the statue:

(i) All of a sudden, I accidentally bumped into the statues, and *Ringo toppled over and fell on himself.
 (Jackendoff 1992: 5)

If we assume that the reference to a statue by the name of its model is an instance of conceptual expansion, this is another instance where an oblique is expanded in the face of the subject. As (ii) shows, both the subject and the oblique can be expanded, and as far as these examples are concerned, the priority ceded to subject over oblique is not attested.

(ii) All of a sudden I accidentally bumped into the statues, and John toppled over and fell on Ringo.
 (Jackendoff 1992: 5)

object.

3 COUNTEREXAMPLES

Having established that there is an argument/adjunct asymmetry in the plausibility of conceptual expansion, we have one systematic group of counterexamples to this general principle, as the nominals in the following causal adjuncts show.

- (23) a. **Because of television**, the cinema industry was forced into a battle it was destined to lose.
(=the advent of television / mere existence of television etc.)
- b. They were disqualified from entering the regular force **as a result of age and height**.
(=their being too young/old and too short)
- c. **As a result of this rule**, the motor industry's image has changed from polluter to pal of the earth.
(=the enforcement of this rule / adherence to this rule / rejection of this rule etc.)
- (24) a. **For the purpose of this article** (=writing/reading this article), "pay" means the ordinary basic or minimum wage or salary and any other consideration which the worker receives.
- b. We shall see later how, in the fourteenth century, taxation came to be voted in ever larger sums **for the purpose of war**.
(=fighting/continuing a war)
- (25) She smiled **in spite of herself**. (=her intention not to smile)

It seems necessary to extend the reference of the complement nominal in the adjuncts designating such causal relations as Reason, Purpose, and Concession.⁶ It is simply not enough to identify the literal referent *per se* in these cases. They cannot be treated as conventional, since *television* in (23a), for instance, does not refer to *the invention/the advent of television* without any contextual support. *Age* in (23b) in itself does not mean the shortage or the excess of the number of years, nor does *height* refer to the shortage in the numerical scale when it is isolated out of this particular context. With all the other examples, the same reasoning applies. The nominal expressions are interpreted as specified in the parentheses, just because they are used under the particular context of causal adjuncts.

⁶ Reason is a kind of cause for the result or effect. Purpose is a desired result while the means can be interpreted as a kind of cause for the result. Concession explicates a negation of the cause which leads to the expected effect. This is called Denial of Preventer in Kehler's (2002) terms in section 3.

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The peculiarity of cause-related adjuncts is attested in a number of cases. First, take for example *in the face of*, which is an adverbial ambiguous at least among the interpretations of Reason, Concession, and Location. We find different types of complements following the prepositional cluster depending on its explication.

(26) **in the face of** (REASON)

- a. The only alternative, **in the face of** their own inability to act, is to get the government to fight for them — through demanding laws to back up current procedures. (BNC A6V)
- b. Edward Heath's attempts to commit the party to something more dynamic ... collapsed **in the face of** a corporate culture which had become used to having things its own way under a succession of both Conservative and Labour governments. (BNC ADV)
- c. Freedom retreats **in the face of** laws that are constantly emerging, evolving, and accumulating — but very rarely disappearing. (BNC ASB)

(27) **in the face of** (CONCESSION)

- a. Skybolt just won the debate **in the face of** a growing body of opinion that favoured fitting Polaris into British-built nuclear submarines. (BNC ABA)
- b. Elizabeth was preserving her reputation, and the possibility of one day ruling her country, **in the face of** irresponsible sexual scandal about her created by one step-uncle, Thomas Seymour... (BNC AE4)
- c. Mr Arafat is seeking to reunite the organisation **in the face of** criticism that his associates are corrupt and inefficient and that his decision to join the US-brokered Middle East peace talks has led the Palestinian cause into an impasse. (BNC AJM)

Under the causal interpretations of Reason and Concession, *in the face of* is likely to be followed by a noun phrase with accompanying attributes like infinitivals, participles or relative clauses. Semantically, these complements may well be treated as propositional.⁷

In contrast to the cases above, Locational *in the face of* shows a different kind of complement, as in the following examples. They are rather simple in structure, with no additional attribution.

(28) **in the face of** (LOCATION)

- a. It was like throwing heresy **in the face of** a sacred cow. (BNC AN9)
- b. For one of the curiosities of Aubeterre is a church in the form of an artificial cave hewn **in the face of** the chalk cliff. (BNC A1B)
- c. It (the tarantula) flings its fine hairs **in the face of** the assailant, in a

⁷ A proposition is an abstract entity that has a truth value. Declarative sentences can be used in particular contexts to assert propositions. (Huddleston Pullum et al. 2002: 34)

dense cloud.

(BNC BLX)⁸

In the case of another causal adjunct, *in spite of*, many of the instances in the BNC take event nouns, or action nouns with infinitival modifiers or other kinds of content clauses. What is most revealing is the fact that in (29b, c) *in spite of* is placed on an equal footing with *because*, by way of the correlative forms of *not A but B* and *A rather than B*, and an ensuing finite clause. This is a very good indication of the clausal nature of the complement of this prepositional cluster.⁹

(29) **in spite of**

- a. So **in spite of** the fact that guilt under Section 28 revolves around the intention of the authority and hence the librarian, it is possible that..... (BNC BMH)
- b. The reason for this I think is, *not in spite of*, *but* because their work is so, ultimately, sociological. (BNC GW4)
- c. ...and because, *rather than in spite of*, that tact is utterly inimical to true being. (BNC A6D)
- d. In particular, **in spite of** his attempt to avoid positing history as an *a priori* transcendent law,... (BNC CTY)
- e. So **in spite of** the tree's failure to make its seeds totally impregnable, ... (BNC F9F)
- f. ...so that **in spite of** our concentration other thoughts tend to slip in. (BNC GVJ)

For another illustration of the clausal nature, with regard to the causal phrase *by dint of* which is attested 67 times in the BNC, the head nouns of the complement can be classified into the four categories in Table 1.

⁸ Actually, many of the instances are ambiguous among the available interpretations and the strict segregation into the three categories of Reason, Concession and Location is not a realistic operation. For example, (i) can be locational and concessional at the same time, and (ii) is ambiguous between locational and causal meaning (the presence of the photographer of Sunday Herald being a nuisance). I simply intend to show that reason and concession phrases can be propositional with some complexities in the syntax while locational phrases can be much simpler.

(i) The picture he paints of the young Arthur Wellesley is of a man who is calm, courageous and decisive in the face of the enemy,... (BNC AHA)

(ii) There was even a blurred picture of the man shutting the door in the face of the Herald photographer. (BNC HTR)

⁹ As for the other two instances, one of them is used in the set phrase of "in spite of oneself" as in (25), and the other one can be contextually restricted:

(i) If one rejects this authenticity condition, then one has to find ways of presenting comprehension tasks so that the learner's interest is engaged in spite of the artificiality (of presenting comprehension tasks)... (BNC CBR)

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BY DINT OF	instances	ratio
Action nominals (23 tokens)	labour, preparation, enquiries, sales, hard thought, effort [3 times], presentation, kick, use, imagination, kisses and caresses, extract, manipulation, allegations, research, perseverance, manifestation, alterations, endeavour, vigilance, hard work and determination	34.3%
Event nominals (13 tokens)	pressure, self-discipline, success, afternoon round (golf), experience [twice], passage (of time), birdies and a fortunate eagle (golf), presence, enterprise, pact, victory, footwork	19.4%
Gerunds (19 tokens)	becoming, posting, bullying, contact-tracing, playing, winning, putting, having [twice], maintaining, demanding, coming, lobbying, dwelling, being, having supported, plugging, writing, borrowing	28.4%
Others (12 tokens)	Attributes (9 tokens): extra degrees of vim, one overwhelming individual personality, leadership, their (=the houses') brightly painted front door, the number of CICS applications, great energy and hard work, merit, their wits, virtues and a personality	13.4%
	Measures (3 tokens): radical policy, opportunity, take-over tactics and property dealing	4.5%

Table 1: Distribution of BY DINT OF

From the list of the nominals in Table 1, it is obvious that, with this causal phrase as well, most of the expressions in the complement designate events and actions, so that some propositional situation is easily evoked because of a predicational relation encoded by the complement head noun. *Others* can be divided into two subgroups. One of them indicates the attribute of a person or thing in the given context and the situation of *assuming (having) that property* is to be construed as the cause of the main clause which encodes the result, as in (30a). The other group is a list of measures one can take in order to lead to a desired result, so that *taking (adopting) the*

measures is a situation evoked from the linguistic clues, as shown in (30b).

- (30) a. He has had a very distinguished career and **by dint of** *old-fashioned virtues and a marvelously warm personality* (= his having old-fashioned virtues and a marvelously warm personality) has held the Party together on many occasions. (BNC HRJ)
- b. It was run by a couple of brothers who had started with one large pub in North London and had built the company, **by dint of** *aggressive take-over tactics and shrewd property dealing* ... (=their adopting aggressive take-over tactics and shrewd property dealing, ...) (BNC CS4)

As is clear by now, *Others* is the group of head nouns corresponding to those appearing in (23)-(25), which need to be conceptually expanded in an obvious manner, since they lack a semantic predicate forming the main constituent of a propositional content.

In the case of the causal adjunct *because of*, which appears 17,559 times in the BNC, 500 tokens are randomly selected and sorted out along the classification in Table 1. The overall distribution is a little different from that of *by dint of*. This is demonstrated in Table 2.

BECAUSE OF	examples	ratio
Action nominals (103 tokens)	love, affection, disputes, answer, change(s), restrictions, enrolments, conformity or regulations, complaints, response, concentration, objection, management, movement, admiration, laughter, competition, interruption, developments, use, suggestion, mistrust, adjournment, emphasis,	20.6%
Event nominals (147 tokens)	problem, lack, incompetence, needs, secrecy, fate, idealistic notion, isolation, necessity, resonance, considerations, dearth, sin, injustice, perceptions, associations, consequences [twice], fall-off, prevalence, emergency, risks, experience, embarrassment, concentrations, pressures, failure, diet, shortage, plummeting prices,	29.4%

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Gerunds (10 tokens)	sharing, lashing, wanting, de-stocking, being [4 times], having, thinking,	2.0%
Clauses (6 tokens)	who you are, what we use it for, what they see as a betrayal of its politique Arabe, what he ate for breakfast, what he had done, what I have done or what I have failed to do,	1.2%
Others (234 tokens)	Attributes/Mean (186 tokens): angst, poor rate of return, awareness [3 times], content, feelings, factors, fear [twice], developing technology, philosophy, gravity, dependence, method, ignorance, views, extent, way, anything, sensitivity, chain-guard, culture, neuron, unwillingness, anxieties, danger, programme, features, value, age, swollen glands, ferocity, stance, merit, feminism, poor quality, skills, attitude, spirit, nature, grace, weather, title, effects,	37.2%
	Entities (25 tokens): \$50,000, crevasses or cliffs, television, greens, burdens, seas, microphones, pearls, the glass, this shared world, ice, her young children, school,	5.0%
	Pronouns/names (23 tokens): This [7 times], them[5 times], it[3 times], that [twice], me [twice], her, the Maori kings, Frankie, Ari,	4.6%

Table 2: Distribution of BECAUSE OF

The ratio of head nouns referring directly to situations (action nominals, event nominals, and gerunds) is smaller, but still half of the instances belong to this category. The largest group of head nouns designates attributes of a person or a thing present in the discourse context. At the same time, we find head nouns referring to physical entities, whose presence, advent, or function can be interpreted as the propositional cause.

- (31) a. The schools were expensive, and necessarily exclusive, in part **because of the considerable burdens** (= the considerable burdens' existence) of providing boarding education. (BNC ARC)
 b. I 'm, I'm sorry if it was too difficult to, to follow, either **because of the microphones** (=malfunction of the microphones) or ... (BNC JNJ)

Even on an occasion where a pronoun referring to a person is employed in the complement, it seems to be taken to refer to a situation related to that person. Consider a case like (32).

- (32) A: He died all **because of you**!
 B: What? What did I do?
 A: You didn't call the ambulance immediately.

Speaker A assumes a situation which was brought about by Speaker B and whom he believes is the cause of the fatal incident. Yet he does not mention the event directly and employs a personal pronoun referring to B as a metonymical vehicle. Speaker B cannot identify the situation and asks a question himself. Speaker A, in response, has to present a proposition which was insinuated by the pronoun at the beginning. In short, *you* is intended to designate a situation which is related to its referent, and should be conceptually expanded in this context. In contrast, when the pronoun is taken literally, as in *He died right in front of you*, the referent of the pronoun does not need to be expanded to any additional situation related to himself.

4 COHERENCE RELATIONS

4.1 Cause-effect

In considering the present problem of why conceptual expansion is required in causal adjuncts, Kehler's (2002) analysis of textual coherence will be of great use. He distinguishes three major types of coherence, which are respectively named, *Resemblance*, *Cause-effect* and *Contiguity*. The crucial point in the characterization of these coherence relations is that *Cause-effect* is uniquely defined as a relation whose atomic units are propositions, as in (33).

- (33) Kehler's restrictions on Cause-effect coherence (Kehler2002: 20-21)
 a. Result: $P \rightarrow Q$ (e.g., and as a result, therefore)
 George is a politician, and therefore he's dishonest.
 b. Explanation: $Q \rightarrow P$ (e.g., because)
 George is dishonest because he's a politician.
 c. Violated Expectation: $P \rightarrow \sim Q$ (e.g., but)
 George is a politician, but he's honest.

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- d. Denial of Preventer: $Q \rightarrow \sim P$ (e.g., even though, despite)
 George is honest, even though he's a politician.

By way of this characterization, a number of grammatical phenomena can be explained, such as VP ellipsis, Gapping and Extraction. Our problem falls under this category of linguistic phenomena. Since Cause-effect relations are maintained between propositions, nominal adjuncts should be conceptually expanded to fit themselves to the requirement of a propositional status.

Prepositional causal adjuncts (e.g., *because of*) take nominal complements, and therefore the semantic gap between a proposition and a single nominal should be somehow bridged. The most direct option would be to add information through the modification of the head noun by clauses like relative, infinitival and participial constructions as in (26)—(27). In these cases, there will be almost no need to extend the semantic content of the complement to place it on a par with a proposition. A less explicit way is to simply employ a head noun referring to a situation, such as event and action nominals. When this option is selected, we can evoke a situation but need to fill in the slots of participants and the time marking contextually, as in (34).

- (34) a. **So, by dint of various enquiries** (=by dint of our various enquiries at that time), we managed to locate a house in a more salubrious area, Cardington Road.... (BNC AMC)
 b. **By dint of careful and meticulous research** (=By dint of her careful and meticulous research at that time) she was able to provide the defence with evidence... (BNC FPN)

The gap is greatest in the case of head nouns referring to entities or attributes, since these nominals do not imply a situation in themselves. For the purpose of conceptualizing a propositional situation, we need to supplement a semantic element of predication to be combined with the head noun.

Even in the case of a head noun modified by a non-finite clause like (35), time marking should be added to make the adjunct into a proposition. Therefore, some semantic extension is required in many of the cases of causal adjuncts. Yet the need for extension is the most explicit in the case of head nouns signifying physical entities or attributes. This seems to be the reason why we intuitively feel the need for expansion in cases like (23)-(25).

- (35) The only alternative, **in the face of** their own inability to act (=their own inability *to act at present*), is to get the government to fight for them — through demanding laws to back up current procedures. (=26a)

4.2 Other types of coherence

4.2.1 *Resemblance* In contrast to *Cause-effect*, *Resemblance* is a relation to be maintained not only among propositional contents, but also among phrases. This is to be illustrated in this section with examples in (38). Note, however, that Kehler (2002) only assumes *Resemblance* relations like Parallel and Contrast among sentential units.

- (36) Kehler's restrictions on some typical Resemblance coherence relations (Kehler 2002: 19)
- a. Parallel: $p(p_1)$ and $p(p_2)$, $q_i(a_i)$ and $q_i(b_i)$ (e.g. and)
 - b. Contrast: $p(p_1)$ and $\sim p(p_2)$, $q_i(a_i)$ and $q_i(b_i)$ (e.g. but)
- $p(p_1)$ and $p(p_2)$, $q_i(a_i)$ and $\sim q_i(b_i)$

(36a) says that the relation in the first sentence p_1 and that of the second sentence p_2 have something in common, namely p , and at the same time, corresponding elements in the sentences, a_i and b_i , have some property in common, namely q_i . As an illustration, in (37a), the common property p would be *do something to support* with p_1 being *organized rallies for* and p_2 being *distributed pamphlets for*. Here, a_i and b_i in subject positions respectively correspond to Dick Gephardt and Tom Daschule, and the common property q_i would be *high-ranking Democratic politicians*. And a_j and b_j in objects share the property of referring to the same person (q_j).

The first line of (36b) refers to a case where the relations expressed are in contrast, as in (37b), and the second line of (36b) deals with the case where the corresponding entities have contrastive properties, as in (37c).

- (37) a. Dick Gephardt organized rallies for Gore, and Tom Daschule distributed pamphlets for him.
 b. Gephardt supported Gore, but Armev opposed him.
 c. Gephardt supported Gore, but Armev supported Bush.
- (Kehler 2002: 16)

(37) illustrates sentential Resemblance relations. Yet these relations can be retained among phrases or even among heads of phrases, as shown in (38).

- (38) a. [The young man and the old woman] went to the station. (Parallel)
 b. [A complete beginner, not a professional] played the main part. (Contrast)
 c. a major [political and cultural] problem of our time (Parallel)
 d. an [important but not unexpected] observation is that ... (Contrast)

In the phrasal domains of (38a), the corresponding elements share the property of being the subject of the predication *going to the station*. In the subject noun phrase

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in (38b), one of the elements has the property of fulfilling the role of the agent of the following predicate *played*, while the other one does not. In (38c), the adjectival premodifiers act as heads, since they are basically head final in this position (Sadler & Arnold 1994), and they share the property of designating a proper attribute of the following head noun, while the premodifiers in (38d) do not share this property. These cases show that even in phrasal domains, we can establish *Resemblance* relations like Parallel and Contrast, so I would like to propose subtypes of *Resemblance* as the following restrictions illustrate. In short, I would like to propose *Resemblance* at phrasal and word level domains.

- (39) a. Parallel: $q_i(a_i)$ and $q_i(b_i)$
 b. Contrast: $q_i(a_i)$ and $\sim q_i(b_i)$ ¹⁰

Now even if noun phrases are connected through this type of coherence relation, they will not be instigated to enlarge their referential ranges by the requirement of coherence.

- (40) Parallel: a. [The kettle and the cooking pot] are boiling.
 b. Answer [the phone and the door].
 c. [Either the kettle, or the cooking pot], is boiling.
 d. Answer [either the phone, or the door].

- (41) Contrast: a. [The kettle, not the cooking pot], is boiling.
 b. Answer [the phone, not the door].

The conceptual expansion in these cases is triggered by the predicate selecting the nominals in question and the status of being the argument of the predicate is the crucial factor in the implementation of the expansion. In contrast, objects in (42) do not expand their reference, though they are involved in a Parallel or Contrast relation, just as in (40)—(41). This shows that the coherence of *Resemblance* has nothing to do with the conceptual expansion of the nominals.

- (42) a. John brought Mary [a cake and a bouquet]. (Parallel)
 b. John intends to bring Mary [either a cake or a bouquet]. (Parallel)
 c. John brought Mary [a cake, not a bouquet]. (Contrast)

¹⁰ Kehler identified six subcategories of *Resemblance*, but we only take up two of them in the main text. The other subtypes are Exemplification, Generalization, Exception and Elaboration. In these cases, too, sentential connections are not the only realizations. We have examples at the phrase level, as illustrated below.

(i) [Some Democrats, for example, Dick Gephardt] attended the party.
 (ii) [Gephardt and Daschule, or in general, high ranking Democrats] attended the party.
 (iii) [High ranking Democrats except Gephardt] attended the party.
 (iv) [A high ranking Democrat, that is, Gephardt] attended the party.

Additionally, as exemplified at the beginning of this paper in (2), the phrasal Resemblance relation between *Mary* and *the door* does not instigate the expansion of the latter nominal in (2d). This again shows that conceptual expansion is not sensitive to this type of coherence relation.

4.2.2 Contiguity The other coherence relation of *Contiguity* is ‘a bit murkier (Kehler 2002: 22)’ and only a single type of *Occasion* is identified as its instance. It expresses ‘a sequence of eventualities centered around some system of entities,’ and typically it designates a natural sequence of events, as in (43).

- (43) a. George picked up the speech. He began to read.
 b. Larry went into a restaurant. The baked salmon sounded good and he ordered it. (Kehler 2002: 22)

In these cases, verbal eventualities are somehow connected with each other to advance the flow of the text. Now let us consider the following cases.

- (44) a. The janitor cleaned the classroom. Just before going out, he erased **the blackboard**. (=scribbles on the blackboard)
 b. The janitor cleaned the classroom. Just before going out, he took away **the blackboard**.
- (45) a. The bell rang, and John ran into the living room. He answered **the phone** just in time. (=the person on the other end of the phone line)
 b. The bell rang, and John ran into the living room. He threw out **the phone** through the window.

The blackboard in (44) and *the phone* in (45) are evoked and made accessible from the preceding mentions of *the classroom* and *the bell*, respectively. Sequences of events are depicted in all the examples, and the relatedness is partly established due to the domain-attribute relations detected between these nominals. Therefore, these texts will be classified under the coherence relation of Contiguity. But the conceptual expansions of the objects in (44a) and (45a) have nothing to do with the coherence relation, since in (44b) and (45b), though the same coherence relation is present, it does not instigate an extended reference of the underlined object nominals. Contiguity does not seem to be a type of coherence relation that controls the plausibility of conceptual expansion of nominals, either. Additional examples are listed in (46)-(47).

- (46) a. I put out the fire with **the kettle**.
 (??the kettle=the water in the kettle)
 b. I smelled something was burning in the kitchen. I hurried in and put out the fire with **the kettle**. (??the kettle=the water in the kettle)

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- (47) a. He tied **his shoes**. (his shoes=the shoelaces)
 b. *He tied the bundle of newspapers with **his shoes**.
 (*his shoes=the shoelaces)
 c. He was fed up with the junk in the room. *He tied the bundle of newspapers with **his shoes**. (*his shoes=the shoelaces)

The adjunct nominals in (46a) and (47b) are not likely to be extended, and the situation will not change even when they are placed in the text of contiguity as in (46b) and (47c).

From the observations above, it seems reasonable to assume that nominal phrases in causal adjuncts can uniquely extend their reference under the requirement of a proper textual formation. Hence we can state the following principle regarding the exceptional behavior of causal adjuncts.

- (48) The exceptional conceptual expansion of adjuncts in Causal relations is motivated by the requirement of propositional status for both the protasis and the apodosis in the designated textual relation.

5 LOCALITY OF CONCEPTUAL EXPANSIONS

The preceding section dealt with the expansion attested in causal adjuncts only as an irregularity, but the expansion has at least one common feature with other types of expansions examined in the first section. It is a locality condition to the effect that the target of expansion and the trigger which instigates it should be located in the same single clause.¹¹

In the phrase *answer the phone* in (49), the predicate is the trigger of expansion, while *the phone* is the target.

¹¹ When the trigger is replaced by some other linguistic form, the possible values of the expansion may be changed, or the expansion will not be implemented.

(i)a. He erased the blackboard.

b. He fixed the blackboard on the wall.

(ii)a. The kettle is boiling.

b. The kettle fell off from the table.

(iii)a. Our dinner table looked like a commercial for the Michelin Guide.

b. Her smile looked like a commercial for the dental association.

In (ia) and (iia), the blackboard refers to scribbles on the blackboard, and the kettle refers to the water contained in the kettle, respectively. On the other hand, (ib) and (iib) show that the counterparts are interpreted literally. In the former cases, the predicate controls the range of the actual referent of the complement nominals, so that they will be called the trigger of expansion.

(iii) illustrates a somewhat different case. The oblique objects are expanded, but the value of the expanded reference is controlled by the subjects: in (iiia), a commercial refers to a dinner table featured in it, while in (iiib), the same nominal is used to refer to a smile featured in it. The crucial factor is the parallelism between the target and the subject, and in this sense, the subject can be a trigger of the oblique nominal. At any rate, the triggering element and the target should be inside a single clause.

- (49) Will you answer **the phone**?
 (=the person on the other side of the phone line)
 ***That phone** seems to be new to me, judging from the number on the display. (*that phone=the person on the other side of the phone line)
 cf. The number/The caller seems to be new to me.

The phone in the first sentence refers to the person on the other side of the phone line. But this referential shift will not be carried over to the next sentence. If we would like to say that the caller seems to be a stranger because of the number on the display, we need to use the nominals like *the phone number* or *the caller*. *The phone* can no longer be used as a substitute for the caller on the other side of the phone line in the second mention. Some other examples to the same effect are listed in (50). They all show that the first mention of the italicized nominal is conceptually expanded, but the same nominal in the second mention cannot be used to refer to the same extended referent. Therefore, the expansion is locally controlled.¹²

- (50) a. He looked like a commercial for the great outdoors.
 (=a character in the commercial)
 * **The commercial** was very young and attractive.
 b. John tied **his old canvas shoes**. (=the shoelaces) **The shoes** were very frayed. (**The shoes** refers to the canvas shoes themselves, not the shoelaces.)
 c. Turn up **the music**. (=the volume) ***The music** is the silver button next to the light switch.

A word of caution is in order here. Of course, when the expansion is conventional, it is applicable across clause boundaries, as in (51). Or this expansion is not regulated by the locality restriction since it obtains everywhere.

- (51) a. My father was injured in Pearl Harbor. He always said he would never forget Pearl Harbor. (=battle in Pearl Harbor)
 b. I don't like Shakespeare so much. Still I must admit that I have

¹² The second sentences in (49)-(50) employ the referring expressions "that (the) X" instead of a pronoun. As is well known, the reference of a pronoun can be fairly sloppy, and their antecedents need not be syntactically identifiable.

(i) Patty is a definite Kal Kan cat. Everyday she waits for it.

(ii) Mary is a physicist; she says it's an exciting field. (Ward, Sproat and McKoon 1991: 454, 465)

(iii) I don't speak Italian, but I'd love to go there. (Nunberg 1995: 129)

(i) shows that part of a compound can be the antecedent of a pronoun, while (ii) and (iii) indicate that the antecedent can be another form deriving from a common morphological stem.

In addition, Ibáñez & Velasco (2002: 500) illustrated that metonymical reference should be regulated by their Domain Availability Principle, which states that whenever a metonymy occurs in a sentence, only the matrix domain is available for anaphoric reference.

With all the uncertainties and regulations involved in the use of a pronominal reference, pronouns are not employed in this test form. It is demonstrated here that the expanded reference observed in a clause will not be carried over across clause boundaries to another occurrence of the same referring expression in another clause.

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one exception in Shakespeare, that is, *Macbeth*.
 (=works of Shakespeare)

Now this restriction of locality is also observed in causal adjuncts as in (52).

- (52) a. They were disqualified from entering the regular force. *They were given an explanation of the disqualification **as a result of age and height**. (Cf. 23b)
 b. She giggled. Then she started to laugh **in spite of herself**. (Cf. 25)
 (in spite of her intention not to laugh/*not to giggle)
 c. ***For the purpose of war**, they decided not to send the largest army squad. At the same time, they imported the latest anti-aircraft missiles **for the purpose of pretending to follow the UN security council instructions**.

In this case, the trigger of the expansion is the coherence relation of *Cause-effect*. This textual trigger only dictates that the result of the expansion be propositional, and no further specification of the expansion is directed by the trigger. Further contextual information will decide the plausible explication of the adjuncts, and therefore, this is a very weak type of trigger for expansion. And yet, it shows a locality effect.

In (52a), in comparison to (23b), the phrase headed by the prepositional cluster *as a result of* is separated away from the clause indicating the direct result *they were disqualified from entering the regular force*. The ill-formedness of this sentence shows that the adjunct has to be adjoined directly to the result clause to form a single sentence in a local manner. (52b) shows that the reflexive pronoun *herself* refers to her intention not to laugh, the action specified within the same single clause in which the causal adjunct is contained. The nominal cannot be related to the action of giggling, specified in the preceding clause. (52c) indicates that the purpose and its means have to be in a one-to-one correspondence within a single clause. The purpose in a clause cannot be connected to its means specified in another clause. So, these cases all show that the causal relation has to be contained within a single clause.

Lastly, the pro-verb *did so* in the fourth sentence of (53) is ambiguous: it either refers to the three consecutive actions or only to the final one depicted in the preceding sentences.

- (53) She smiled. She giggled. And then she burst into laughter. She did so **in spite of herself**. (=her will not to do X) (Cf. 25)

In accordance with the two explications, the expansion of *herself* is to be regulated. When three actions are substituted by the pro-form *did so*, the conceptual expansion of the pronoun to *her will not to do X* must involve the whole sequence of actions; when the final action is selected as the target of anaphoric reference of *did so*, the X in the expansion follows suit. In short, the causal relation between *she did so* and

herself mediated by *in spite of* is strictly local, and the possible expansion of the reflexive is controlled by the explication of the pro-verb within the same single clause. When the pro-verb selects only the final action, the reflexive cannot be expanded to involve three actions, which would be possible if direct connection between the antecedents and the target of expansion is possible across clause boundaries disregarding the causal relation.

6 SUMMARY

This paper started with the general observations of conceptual expansion and examined the validity of the generalizations cited as follows.

- (i) Arguments lexically selected by the predicate of a sentence are more likely to become the target of conceptual expansion than adjunct elements.
- (ii) Conventionality nullifies the distinction in argument status of the target of expansion.

After reviewing a similar proposal presented by Waltireit (1999) and demonstrating the viability of the present approach, we dealt with a systematic exception to the generalizations in (i) and (ii), attested in certain types of adjuncts.

These exceptions are limited to texts under the coherence relation of *Cause-effect*, and the motivation for the expansion can be attributed to the formation of this particular coherence relation. *Cause-effect* is a unique relation which is to be established between propositions: when the adjunct nominal designates an event or an action in itself, it does not need to be extended drastically, but nominals which do not designate propositional contents, such as referring expressions of physical entities or attributes, need to be expanded to fit themselves into a propositional content. This is an expansion independently motivated by the requirement of establishing a coherent text. Yet even in the case of this irregular expansion, we detect a property shared with the general cases discussed in the first section, and that is a restriction on locality which requires the occurrence of the target and the trigger of the expansion in the same single clause. In this respect, the irregular instances can be regarded as regular ones.

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