Interpretation of Adverbials with Stage/Individual Level Predicates

Satu Manninen

Department of Linguistics, University of Edinburgh
40 George Square, Edinburgh EH8 9LL, Scotland
satu@ling.ed.ac.uk

1 Introduction

This paper focuses on sentences containing stage and individual level predicates, examining changes in interpretation when the predicates are combined with certain types of adverbials. Based on data from Finnish, I propose that the division of predicates into two groups (ie stage and individual level predicates) is not always clear-cut, but that there seem to exist different degrees of stage and individual levelness. Individual level predicates can for example sometimes have properties that are stage level. Secondly, I propose that the stage or individual level readings may not always originate from the predicates themselves (ie are not always contained in the predicates themselves), but can be brought about by certain types of adverbials. Thirdly I shall put forward the hypothesis that stage and individual level predicates, because they seem to have different distributions, might also have different syntactic structures.

2 Stage/Individual Level Predicates

Before going on to examine data from Finnish, I discuss briefly what stage and individual level predicates are. The distinction between stage and individual level predicates was first introduced by Carlson (1977), following Milsark (1974). Carlson used the stage/individual level distinction to explain the different readings that English bare plural nouns receive in different contexts:

(1) a. Mice ate all the cheese in the fridge.
b. Mice are small.
c. Mice are animals.

The term bare plural noun, according to Carlson (1977) refers to NPs which lack overt specifiers, but which can still get different readings. Carlson (1977) suggests that bare plural nouns get different readings, not because they are accompanied by some kind of null specifier element, but because of the type of the predicate that these nouns are combined with. In other words, bare plural nouns are unambiguous, and can get a unified analysis so that all the occurrences of bare plurals are similar, in terms of structure and interpretation.

So, if nouns get different readings depending on the type of predicate they are combined with, my question is: can adverbials also behave in the same way, and get different readings, depending on the type of the predicate they are combined with.

I begin by looking at some simple sentences in Finnish, consisting of a subject and an intransitive verb:

(2) Sirkku kavelee
Sirkku-nom walk-present/3sg
Sirkku walks

The sentence in (2) is ambiguous between two readings. On the one hand, we can be talking about some specific, temporary occasion on which Sirkku walks. On the other hand, we can be talking about some generic, permanent property or characteristic that Sirkku has. The first reading is the stage level reading, and the second reading is the individual level reading. Carlson (1977) argues that these two readings arise because the verb 'walk' has multiple meanings. It can either be a stage level verb and quantify over stages, or it can be an individual level verb and be predicated of individuals. As a stage level verb, it expresses temporary, transitory events: we are saying something that holds of an individual named Sirkku with regard to some particular time or place. As an individual level verb it expresses the inherent, permanent properties or characteristics that an individual has: we are saying something that always holds of an individual named Sirkku, or is always Sirkku's property or characteristic, irrespective of time or place. It is always true of Sirkku that she has the property of walking, in the same way that it is always true of Sirkku that she has blond hair, or tans easily, or likes to eat croissants in the morning. This is in keeping with Milsark (1974), who argues that stage level predicates express qualities that can be removed without causing any changes in the essential qualities of the individual, ie in this case the subject Sirkku, whereas individual level verbs express qualities that cannot be removed without causing changes in the essential qualities of the individual. This is exactly where adverbials enter the scene, because many adverbials, although they are not arguments of the verb and are not selected by the verb, seem to contribute something to the essential qualities of the entity, and thus cannot be deleted from the sentence without causing changes in the essential qualities of the individual.

3 Stage/Individual ambiguities

Before looking at examples of these adverbials from Finnish in more detail, I shall briefly point out that most verbs are ambiguous between a stage level reading and an individual level reading. Carlson (1977) argues that this is because all verbs that are originally stage level can be transformed to individual level verbs by means of a special G(eneric)-operator. There also exist verbs that originally only receive an individual level reading, although these verbs can receive stage level readings in some special contexts. (3) is an example of a purely individual level verb.

(3) Sirkku osa-a ruotsi-a.
Sirkku-nom know-present/3sg Swedish-partitive

Sirkku knows Swedish

Carlson proposes that the stage or individual levelness is always a property of the verbal (or adjectival) predicate itself, so it is always contained, or included, in the predicate itself. Diesing (1988) shows, however, that the stage and individual level interpretations can be brought about by other elements as well. So far I have only discussed sentences consisting of the subject and the verbal predicate. I shall now move on to discuss adverbials, examining what happens when stage and individual level predicates are accompanied by adverbials of manner, place, or time. I shall first look at adverbials of manner. The below examples from Finnish suggest that a verb ambiguous between a stage level and an individual level reading remains ambiguous when it is accompanied by an adverbial of manner. Adverbials of manner do not seem to affect the atelic reading of these sentences, as they are all seen as being unbounded, and having no natural beginning or ending:

(4) Sirkku kavele-e ontu-e-n.
Sirkku-nominative walk-present/3sg limp-2infinitive-instructive
Sirkku walks with a limp

(5) Sirkku kavele-e kuin ankka.
Sirkku-nominative walk-present/3sg like duck-nominative
Sirkku walks like a duck

The sentences in (4-5) are ambiguous between a stage and an individual level reading. The stage level readings for these sentences are only true of Sirkku at some particular time or place, so that walking with a limp or walking like a duck are Sirkku's stages. Because they are Sirkku's stages, they are regarded as something temporary. The individual level readings for (4-5) express some general fact always holding of Sirkku, irrespective of time and place. Sirkku has the property of walking with a limp, or walking like a duck, and there exists no other types of walking for Sirkku. Whenever Sirkku walks, she walks with a limp, or like a duck. She cannot control the situation, ie she cannot choose not to walk with a limp. In that sense the removal of the ad verbial element from the individual level reading changes Sirkku's essential, permanent characteristics.

In (6-7) an ambiguous verb like 'walk' is accompanied by adverbials of place:

(6) Sirkku kavele-e koulu-un.
Sirkku-nominative walk-present/3sg school-illative
Sirkku walks to school

(7) Sirkku kavele-e ranna-lla.
Sirkku-nominative walk-present/3sg beach-adessive
Sirkku walks on the beach

These sentences are again ambiguous between a stage level and an individual level reading. The stage level readings are true of Sirkku only at a some particular time: walking to school or on the beach are Sirkku's temporary stages. The removal of the adverbial does not change any of Sirkku's permanent properties or characteristics. The individual level readings for the same sentences express an essential fact always holding of Sirkku: she is the one who habitually walks to school, or the one who habitually walks on the beach. Just like with adverbials of manner, the removal of the adverbial element seems to change Sirkku's permanent properties or characteristics.

Let's now look at adverbials of time:

(8) Sirkku kavele-e keskiviikko-i-sin.
Sirkku-nominative walk-present/3sg Wednesday-pl-adverb
Sirkku walks on Wednesdays

(9) Sirkku kavele-e keskiviikko-na.
Sirkku-nominative walk-present/3sg Wednesday-essive
Sirkku walks on Wednesday

(8) contains the adverbial 'keskiviikkoisin' which, in Finnish, expresses indefinite time. We are not talking about any particular Wednesday, but Wednesdays in general, and the sentence can only receive an individual level reading. We are stating a general fact about Sirkku: she is the one who habitually walks on Wednesdays. In (9) there is the adverbial 'keskiviikkona' which expresses definite time in Finnish. We are talking about some specific Wednesday, and only the stage level reading is available (NB. the plural of 'keskiviikkona' would be 'keskiviikkoina' which, at least to me, would suggest an individual level reading. I shall not discuss the role of the plural here however).

Certain verbs, as already pointed out, can only receive an individual level reading, which can also be accompanied by adverbial elements. The following sentences are examples of a purely individual level verb, accompanied by adverbials of manner, place, and time.

(10) a. Sirkku osa-a ruotsi-a huonosti.
Sirkku-nom know-present/3sg Swedish-partitive badly
Sirkku knows Swedish badly

b. Sirkku osa-a ruotsi-a kuin vetta vaan.
Sirkku-nom know-present/3sg Swedish-partitive like water only
Sirkku knows Swedish fluently

c. Sirkku osa-a ruotsi-a Ruotsi-ssa.
Sirkku-nom know-present/3sg Swedish-partitive Sweden-inessive
Sirkku knows Swedish in Sweden

d. Sirkku osa-a ruotsi-a keskiviikko-i-sin.
Sirkku-nom know-pres/3sg Swedish-partitive Wednesday-pl-adverb
Sirkku knows Swedish on Wednesdays

e. Sirkku osa-a ruotsi-a keskiviikko-na.
Sirkku-nom know-pres/3sg Swedish-partitive Wednesday-essive
Sirkku knows Swedish on Wednesday

In (10a-b), the adverbials of manner do not seem to change the type of the individual level predicate, and the sentences seem to remain individual level in Finnish, so that it is Sirkku's general property or characteristic that she knows Swedish badly or fluently. (10c) can receive both a stage level and an individual level reading in Finnish. As a stage level verb, we are merely stating what Sirkku is doing right now: she is, right now, knowing Swedish in Sweden. As an individual level verb, we are stating a general fact always holding of Sirkku: she is the one who always knows Swedish in Sweden. However, although the sentence as a whole is individual level, the know Swedish part can only be stage level. If someone knows Swedish only in Sweden, then knowing Swedish cannot be his or her permanent property or characteristic, ie something that is always true of them. (10d) can only receive an individual level reading in Finnish, and (10e) can only receive a stage level reading in Finnish. However, although (10d) as a whole may receive an individual level reading, so that it tells us something about Sirkku's permanent properties or characteristics, the know Swedsh part can only receivea stage level reading. If someone knows Swedish only on Wednesdays, then knowing Swedish cannot be their individual level property, ie it is not always true of that person that he or she knows Swedish.

4 Multiple Adverbials

I shall now move on to look at sentences that contain several adverbial elements. I have just argued that verbs such as 'walk' are ambiguous between a stage and an individual level reading. Similarly, I argued that sentences such as 'Sirkku walks with a limp' and 'Sirkku walks to school' are ambiguous between a stage and an individual level reading. The sentence 'Sirkku walks on Wednesdays' only has an individual level reading, and the sentence 'Sirkku walks on Wednesday' only has a stage level reading. Let's see what happens when these adverbials are found in the same sentence:

(11) a. Sirkku kavele-e ontu-e-n koulu-un.
Sirkku-nom walk-present/3sg limp-2infinitive-instructive school-illative
Sirkku walks with a limp to school

b. Sirkku kavele-e ontu-e-n keskiviikko-i-sin.
Sirkku-nom walk-pres/3sg limp-2inf-instructive Wednesday-pl-adverb
Sirkku walks with a limp on Wednesdays

c. Sirkku kavele-e ontu-e-n keskiviikko-na
Sirkku-nom walk-present/3sg limp-2inf-instr Wednesday-essive
Sirkku walks with a limp on Wednesday

(11a) is ambiguous between a stage and an individual level reading. We can either be talking about a specific, temporary occasion on which Sirkku walks to school with a limp, or we can be talking about a generic, permanent property that Sirkku has: she is the one who habitually walks to school with a limp. So it is always true of Sirkku that she walks to school with a limp. But, although the first sentence as a whole may state an essential fact always holding of an individual named Sirkku, so that walking to school with a limp is Sirkku's permanent property or characteristic, it is not always true of Sirkku that she walks with a limp. So walking with a limp must be a stage level property. (11b) only receives an individual level reading, so that it is an essential property of Sirkku that she walks with a limp on Wednesdays. The sentence as a whole is individual level, but walking with a limp is again stage level.If Sirkku walks with a limp only on Wednesdays, then walking with a limp cannot be a permanent characteristic always holding of Sirkku. In (11c), the adverbial 'on Wednesday' expresses definite time, and the whole sentence receives a stage level reading: both the sentence as a whole and its subpart, the walking with a limp part, are interpreted as being stage level. So it would seem that if we combine two things which, on their own, can receive an individual level reading, when they are combined with each other, they can only receive a stage level reading, even though the sentence as a whole receives an individual level reading.

5 Discussion

I have now discussed stage and individual level predicates, and showed that they cannot be used interchangeably: certain adverbial elements can only combine with a stage level reading, and seem to require the sentence to contain stage level subparts. Because stage and individual level predicates seem to have such different distribution, I am now going to suggest that they may also differ structurally. A suggestion of a similar kind is made by Kratzer (1988), who says that instead of being properties of different types of entities, stage and individual level predicates differ in argument structure: stage level predicates have an external argument position for spatio-temporal location, individual level predicates have not. This extral external argument is often referred to as the Davidsonian argument. Kratzer (1988) suggests that the subjects of all stage level predicates are base generated within the maximal projection of the predicate (in Specifier of VP), whereas the subjects of individual level predica tes can be base generated either inside or outside the maximal projection of the predicate (either in Specifier of VP or in Specifier of IP).

Although I agree with Kratzer (1988) in that stage/individual level predicates can have different syntactic structures, my starting point is rather different from hers. In my opinion, if the adverbial 'with a limp' cannot be removed from the individual l evel reading of 'walk with a limp' without changing the essential qualities of the individual named Sirkku, then it should be analysed differently from the adverbial 'with a limp' in the stage level reading, which can be removed quite freely. In the stage level readings, the adverbial might be an ordinary adverbial modifier, perhaps a sister to a nonminimal verbal head. In the individual level readings, however, the adverbial seems to somehow form an integral part of the action described by the verb, and one should somehow be able to show that the verbal and the adverbial meaning are unified, and inseparable.

6 Conclusion

The idea that I have experimented with is a loose adaptation of Cann (1996). Cann (1996) argues that certain constructions can be doubly headed by two elements, so that the label of the phrase marker is a union of two separate heads. In the case of 'walk with a limp' the verb 'walk' might be the primary head. The secondary head, which in this case might be the adverbial 'with a limp' might then stand in the Specifier of V position, and its properties migth be determined by some higher governing head. In other words, I suggest that the verb 'walk' is the primary verbal head, whereas the adverbial 'with a limp' is the secondary head occupying the Specifier of V position. The label of the phrase marker is some kind of a union of the qualities and the semant ics of both the verb and the adverbial. The adverbial 'with a limp' occupying the Specifier of V position has, in Finnish, the second infinitive intrumental form of the verb 'limp' so the adverbial might then possibly be analysed further as some kind of a projection of the instrumental case, selecting an infinitival complement. So far I have not analysed these constructions in great detail, but, at least as a first approximation, they seem very promising in that they are able to explain why the distributi on of the Specifierless phrase is different from that containing a Specifier. Only the specifierless phrase, ie the phrase which receives the stage level reading, can combine with certain types of adverbials, such as adverbials of time and place. The phra se containing the Specifier, ie the phrase that receives the individual level reading, cannot combine with certain types of adverbials.

References

[1] R. Cann. Specifiers as secondary heads. Technical Report EOPL-96-2, Dept. of Linguistics, University of Edinburgh, 1996.

[2] G. Carlson. *Reference to Kinds in English.* PhD thesis, MIT, 1977.

[3] M. Diesing. Bare plurals and the stage/individual contrast. In M. Krifka, editor, *Proceedings of the 1988 Tubingen Conference. Seminar furn Naturlichsprachliche Systeme der Universitat Tubingen*, 1988.

[4] A. Kratzer. Stage-level and individual-level predicates. Papers in Quantification. University of Massachusetts, Amherst, 1988.

[5] G. Milsark. *Existential Sentences in English.* Garland Publishing, New York, 1974.