

A remark on the Individual/Stage-level Predicate Distinction in English¹

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1 Two kinds of predicates

The terms *individual-level* and *stage-level predicate* were coined by Carlson (1977) (following the proposal of Milsark) in order to make a distinction between predicates that apply for an individual or just for a stage of its life, respectively. It has been claimed that due to this distinction, a number of grammatical phenomena in different languages can be explained.

1.1 Diagnostic tests

In what follows, linguistic tests are presented which are supposed to tell the two kinds from each other, which have been provided by Carlson et al. (1995), Chierchia (1995) and Musan (1997).

There-insertion

If a predicate can occur in the coda position of there-sentences, it is a stage-level predicate (SLP). It looks like individual-level predicates (ILPs) cannot appear in such positions.

- (1a) There are firemen available/drunk. (SLP)
- (1b) *There are firemen altruistic/intelligent. (ILP)
- (1c) There are students smoking in the classroom. (SLP)
- (1d) *There are students knowing French. (ILP)

Perception reports

If a predicate can be in the complement clause of a perceptual report, it is probably a SLP.

- (2a) We saw John exhausted. (SLP)
- (2b) We saw John use the computer. (SLP)

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- (3a) *We saw John tall. (ILP)
 (3b) *We saw John own a car. (ILP)
 (3c) *We saw John a linguist. (ILP)

Subject effects

As the examples show, ILPs force a generic or universal reading of their bare plural subject NPs, while SLPs, even though both generic and existential readings are possible, are more naturally associated with an existential reading than with a generic reading.

- (4a) Firemen are altruistic. (only generic)
 (4b) Swedes have blue eyes. (only generic)
 (5a) Firemen are available. (existential reading possible)
 (5b) Dogs are barking in the garden. (existential reading possible)

(4a) can only mean “firemen are such that they are altruistic” or “it is a property of firemen that they are altruistic”. (5a) could be a predication over firemen as a kind, too, but a paraphrase like “there are firemen who are available” is more natural. As Kratzer (1995) noted however, IL unaccusative verbs behave differently in this regard, since their subjects can have an existential reading.

- (6a) Ponds belong to this lot.
 (6b) She thinks that counterexamples are known to us.

(Kratzer 1995, p. 143)

The generalization corrected by Kratzer thus claims that ILPs with the exception of unaccusatives must have generic bare plural subjects while other predicates allow for an existential reading for their bare plural subjects, too.

Stable stativity of ILPs

Predicates like *know*, *love*, *weigh* or *own*, are aspectually stative and they all express stable states. They are homogeneous in the sense that they have the subinterval property: if a predicate is true at a time interval, it will also be true at any subinterval of it. Not all ILPs are stative and not all statives are ILPs, there are some SLPs too, that express transient properties (e.g. *be drunk* or *be sick*). Stative predicates are normally unacceptable in the progressive form.

- (7a) John knows French.
 (7b) *John is knowing French.

Lifetime effects

If a predicate in a perfect tense gives rise to implicatures that the subject of the clause does not exist anymore, it is most likely an ILP.

Given that ILPs express permanent properties, combined with certain tenses the implicature might arise that the subject does not exist anymore. Consider the examples of Musan (1997):

- (8a) Gregory was from America.
- (8b) Gregory had blue eyes.
- (8c) Gregory resembled Jörg Bieberstein.
- (9a) Gregory was happy/had a cold/ate cookies.

According to Musan (1997), it is more advantageous to assume that in (8), it is not the event time of the main predicate but the individual that is located in time, which implies that Gregory is dead.

Predicative adjuncts

Apparently, SLPs can appear as secondary predicates, while ILPs cannot.

- (10a) John played the piano injured.
- (10b) *John played the piano talented.

Spatiotemporal modification

Statements expressed by SLPs can easily be located in space and/or time. Since IL-properties are permanent, they can hardly combine with PPs that restrict the predication in space and/or time. Accepting sentences like the following is said to be at least controversial if not impossible:

- (11a) #John is intelligent in his car.
- (11b) #Mary speaks French in her car.
- (11c) #John is a linguist in his car.

On the other hand, SLPs are easy to modify spatiotemporally:

- (12a) John is present at the lecture.
- (12b) Mary is speaking French in her car.

When-conditionals

If a predicate can occur with definite arguments in the restrictor clause of when-conditionals without causing ungrammaticality, it is a SLP. It was Kratzer (1995) who noted some peculiarities in the distribution of different types of NPs in when-conditional sentences.

(13a) When a Moroccan speaks French, she speaks it well.

(13b) When a Moroccan knows French, she knows it well.

(13c) When Mary speaks French, she speaks it well.

(13d) *When Mary knows French, she knows it well.

(13e) When Mary speaks a foreign language, she speaks it well.

(13f) When Mary knows a foreign language, she knows it well.

When-conditionals having ILPs in the restrictor clause with arguments that are all definite turn out to be ungrammatical.

1.1.1 Some frameworks

There are several different suggestions in the literature on how to represent the two kinds of predicates. Carlson et al. (1995) suggests that the predicates combine with different types of subjects: individuals versus stages of individuals.

(14) John is a linguist.

John: $\langle\langle e^i, t \rangle, t \rangle$

be a linguist: $\langle e^i, t \rangle$

(15) John is smoking.

John: $\langle\langle e^s, t \rangle, t \rangle$

be smoking: $\langle e^s, t \rangle$

Kratzer (1995) claimed that the difference between the two kinds of predicates lays in their argument structure: SLPs have an extra argument slot for a Davidsonian argument, which ILPs do not have. This provides an explanation for the oddness of ILPs in SLP-contexts.

(16) Manon is dancing this morning on the lawn

dancing(Manon, l) \wedge this-morning(l) \wedge on-the-lawn(l)

(17) Manon is a dancer

dancer(Manon)

(Kratzer 1995, p. 128)

Chierchia (1995) represents both predicates with a syntactic operator (Gen) that is present in the specifier of the Aspect node in every sentence. Following the neo-Davidsonian tradition, he assumes that every predicate introduces event arguments, ILPs too. The difference between the two readings of the sentence is due to the quantificational feature [+Q] in the Aspect head which must be checked by the Gen operator in order to get a generic/habitual reading (which results in an ILP-interpretation of the predicate itself).

In this essay, I will not evaluate these frameworks. What I want to point to is that no matter which approach we choose, there are some problematic cases that need to be solved. As in the case of almost all grammatical categories or metaphysical ontologies, the ILP/SLP distinction is not without problems. In fact, many linguists adopted the idea of there being a fundamental distinction between the two kinds of predicates, although many valid counterarguments have appeared since the first proposal.

2 Problems and shortcomings

To start with Carlson's own observation, the predicates *young* and *alive* cause some problems for the distinction, because they show properties of both ILPs and SLPs. Based on (18), these should count as SLPs, but based on (19), they behave like ILPs.

(18a) We saw John young/alive.

(18b) John was alive yesterday.

(18c) There are two people alive.

(19a) #John is being young/alive.

(19b) #John was young yesterday.

(19c) *There are two people young.

Another disturbing fact is that apparently, many ILPs can freely occur in SLP-contexts.

(20a) They left the Army fervent noninterventionists.

(20b) Poe died a pauper.

(Escandell-Vidal & Leonetti 2002)²

² Their English examples are cited from McNally (1994). *Adjunct Predicates and the Individual/Stage Distinction*. In: Duncan, E., Farkas, D. & Spaelti, P. (eds.): *Proceedings of WCCFL 12*. Stanford, CSLI.

Also, many predicates cannot appear in the progressive form, even though they clearly express something temporary.

(21a) We want to ask you a question.

(21b) *We are wanting to ask you a question.

(21c) We think you could answer us.

(21d) *We are thinking you could answer us.

It was noted in de Swart (1991) that according to the framework of Kratzer (1995), sentences like (22) should be grammatical, too, which they are not. Predicates like *grow up*, *die*, *commit suicide* etc., she called “once only” predicates, but other verbs can yield a “once only” reading, too.

(22a) *When Anne built the house of Jacques, she always built it well.

(22b) *Peter died several times.

Other anomalies have been observed by Jäger (2001) and Maienborn (2003; 2007), both of whom argue that the distinction cannot be a grammatical one. Jäger checked some phenomena listed among the traditionally assumed diagnostics of the ILP/SLP distinction, and found that these phenomena are unrelated from each other, so the distinction should not be propagated any further. Maienborn believes that copular predicates behave in a way that is completely indifferent to this distinction, and points to the importance of distinguishing different kinds of stative verbs instead. Both authors prefer pragmatic explanations.

In this essay though, I will concentrate on a further problem, namely on the heterogeneity of those sentences that are unacceptable because of a SLP/ILP mismatch. Some sentences become ungrammatical when used with the wrong type of predicate, while others are just “weird”, that is, semantically anomalous. The non-uniformity of the unacceptable sentences raises the question whether such a distinction is legitimate after all, and the problem also concerns the problematic line between semantics and pragmatics.

3 Unacceptable sentences

3.1 Ungrammatical or just weird?

In most cases, the example sentences of section 1.1 are acceptable with only one of the two kinds of predicates. Whether the unacceptable sentences are ungrammatical or semantically odd is not always distinguished in the literature and semantically odd sentences are often grouped together with ungrammatical sentences. It is not a minor question, however, since once a sentence is grammatical, no matter what strange situation it describes, all it needs is a

weird context to become acceptable in it. Consider the examples in (23): all that is needed to accept them (even in a non-metaphorical use) are fictional or strange possible worlds.

(23a) #Peter died several times.

(23b) #John is a linguist in his car.

(23c) #John is being intelligent.

The sentences in (24) are grammatically wrong, but as Chierchia (1995) noted, their meaning is not necessarily obscure: one can understand what was meant by (24b), namely that there are altruistic firemen. The grammar of English, however, is such that these structures are not acceptable.

(24a) *I saw John (be) a linguist.

(24b) *There are firemen altruistic.

(24c) *John played the piano talented.

Be as it may, for sentences that are “only” semantically odd as in (23), their oddness is due to our common world knowledge, and if world knowledge plays a role in their acceptability, it means that at least in cases that do not result in ungrammaticality, the SLP/ILP distinction is merely a distinction made on the level of pragmatics.

3.2 Semantic or pragmatic phenomenon?

Drawing the line between semantics and pragmatics itself is not unproblematic (see Gyuris 2013 and the references therein). There are several suggestions listed in (Gendler-Szabó 2005, p. 6) for locating the border where semantic meaning ends and where pragmatics begins, some of which are cited and used here as a reference³.

(25) Competence

Typically, some but not all of what the speaker conveys could be grasped by any competent speaker without special knowledge.

For example, knowing the difference in meaning and in acceptability between the two pairs of sentences in (26) and (27) is part of the competence of a speaker, which implies that at least in this case, it is a difference in semantics.

³ None of these criteria are easy to define since it is impossible to test them. Therefore, I can only use them in an informal way.

(26a) John is intelligent.

(26b) #John is being intelligent.

(27a) John smokes.

(27b) John is smoking.

But if semantic meaning is the same as truth-conditional meaning, then if (26a) is true, so should (26b) be, and whatever is odd in the utterances should be a matter of pragmatics.

(28) Truth-conditionality

Typically, some but not all of what the speaker conveys is truth-conditionally relevant.

(29) Encoding

Typically, some but not all of what the speaker conveys is encoded in the expression uttered.

In what follows, the phenomena related to the ILP/SLP distinction from section 1.1 are going to be looked at.

3.2.1 Ungrammatical sentences

ILPs in there-constructions, perception reports, certain when-conditional sentences and as predicative adjuncts yield ungrammaticality. This is a mere fact about the grammar of English, not semantics, and it is part of the competence of speakers. Assuming that it is only syntactically well-formed sentences that can be semantically interpreted, truth-conditionality and encodedness do not play a role in interpreting ungrammatical sentences.

3.2.2 Spatiotemporal modification of stative ILPs

As far as stative ILPs are concerned, there seems to be no common agreement on whether sentences where they are subject to temporal or locative modification (by adverbs or by verbal tenses) should be considered ungrammatical or just odd. Even though (30b) can be regarded as acceptable, its oddness here is due to an interpretation without particularized implicatures (which would mean something like “John is trying to seem intelligent”).

(30a) John is intelligent.

(30b) #John is being intelligent.

(30c) #John is intelligent in his car.

(30d) #When John speaks a language, he knows it well.

Giorgio Magri (2006; 2009; 2011) suggests that the oddness of (30b)–(30d) is due to incompatibility with common world knowledge, and nothing else. He suggests a framework in which the oddness of these can be accounted for by means of scalar implicatures, which are generated by a covert exhaustivity operator. This operator does two things: it asserts φ , the prejacent (whatever that falls in the scope of the operator, an NP, a predicate or a clause) and it negates excludable alternatives ψ that together with the prejacent form a Horn-scale.

(31) The semantics of the exhaustivity operator EXH

$$\text{EXH}(\varphi) = \varphi \wedge \neg \psi, \text{ where } \psi \in \text{Excl}(\varphi) \text{ and } \text{Excl}(\varphi) \subseteq \text{Alt}(\varphi)$$

(32) John is being intelligent

$$\varphi \# \text{John is being intelligent}$$

$$\text{Alt}(\varphi) = \text{Excl}(\varphi) = \{ \psi_1 \text{ John is generally intelligent, } \psi_2 \text{ John is always intelligent} \}$$

$$\text{EXH}(\varphi) = \text{John is being intelligent} \wedge \neg \psi \in \text{Excl}(\varphi)$$

According to the strengthened meaning of $\text{EXH}(\varphi)$ in (32), John is intelligent only now but not always, and this is no logical contradiction. $\text{EXH}(\varphi)$ in (32) rather contradicts common knowledge about the property of being intelligent because in our world, if someone is intelligent, that someone is always intelligent, so negating the alternative ψ_1 or ψ_2 cannot hold while stating φ . This is what causes ILPs with restricted temporal validity to sound odd.

Based on the temporally restricted occurrences of the predicates like *intelligent*, blind scalar implicatures seem to account for the oddness of stative ILPs in SLP-contexts.

Returning to Gendler-Szabó’s criteria, since the strengthened meaning is strictly speaking not encoded in the utterance of (32), it should belong to the realm of pragmatics. However, arriving at the strengthened meaning does clearly not require any special knowledge from competent speakers, which suggests that it belong to semantics. As far as truth-conditions are concerned in (32), if we accept Magri’s hypothesis, what is relevant for truth-conditions is the strengthened meaning, not the plain one, so based on this criterion, the phenomenon should be semantic.

3.2.3 Subject effects and lifetime effects

Grammaticality does not play any role in the different patterns of interpreting bare plural subjects with ILPs and SLPs; the question is rather what kind of meaning it is that subject effects and lifetime effects yield. The example sentences demonstrating both phenomena are repeated here.

(33a) Firemen are available. (generic or existential reading)

(33b) Firemen are altruistic. (generic reading only)

(34a) Gregory was from America. (Implicature: Gregory is dead)

(34b) Gregory was happy.

The truth conditions of the two readings of (33a) are not the same, since existential and generic sentences are not equivalent, so based on truthconditionality, this difference is present in their semantics. Since the two readings are not encoded in the utterances, the criterion of encoding suggests that the difference is not made in semantics but pragmatics. No special knowledge is needed for the generic reading of *firemen* in (33b), however, context is needed for the subject of (33a) to read generically or existentially, so the criterion of competence cannot decide if this phenomenon is a semantic or pragmatic one.

In the case of lifetime effects, the outcome is similarly non-uniform. “Gregory is dead” can be cancelled, as the example (35) of Musan (1997) shows, so it is not a conventional implicature. Therefore, it does not belong to the truth-conditional meaning of (34a), which implies that lifetime effects do not belong to semantics. Also, it is not encoded in the meaning, which implies the same. But as far as speaker’s competence is concerned, it actually is part of speakers’ competence to imply that Gregory is dead even without a context, which suggests that lifetime effects belong to semantics.

(35) On that day, I was introduced to Gregory and Eva-Lotta. Gregory was from America, and Eva-Lotta was from Switzerland.

Based on the three criteria provided by Gendler-Szabó, it is not obvious whether subject effects and lifetime effects are semantic or pragmatic in nature.

4 Conclusion

In sum, based on some of Gendler-Szabó’s criteria, it is not obvious in either case whether the given pattern is due to a distinction between individual-level and stage-level properties in lexical semantics or to pragmatics. Using ILPs in there-sentences, perception reports and predicative adjuncts results in ungrammatical sentences. In case of some other phenomena, there are no (strictly speaking) ungrammatical sentences, yet they are unacceptable (odd examples from demonstrating the stable stativity of ILPs, when-conditionals, local and temporal modification), which is due to their incompatibility with common world knowledge. All this suggests that at least in cases where neither kind of predicate can yield

ungrammaticality, world knowledge plays some role in their acceptability, which in turn means that the distinction is at least partly made on the level of pragmatics.

The fact that a mismatch between the wrong type of predicate and its context yields sentences that are ungrammatical *or* semantically anomalous, and sometimes neither, because it only generates some special implicatures suggests that it is rather a difference in our common world knowledge which English grammar does not reflect (or reflects only partly).

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