

The Case for Syntax

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- (1) Syntax is a thankless trade; the man on the street (and some semanticists, for that matter) think it is trivial (at best) or superfluous (at worst). After all, language is about sound and meaning; why make a big fuss about something which is neither sound nor meaning? Why study “structure” by itself?

In short, if you’re going to be despised for wasting your time anyway, why not choose something more lucrative? (make useless money, not useless theories).

[Warning: If you are already deeply confused, don’t proceed beyond this point]

- (2) The case for syntax is twofold: i) We have purely syntactic *intuitions* about sentences; ii) Some phenomena (not given in advance!) call for syntactic *explanations* (phonology & semantics can’t do all the work).

Syntactic intuitions: Green ideas and all that

- (3) a. Colorless green ideas sleep furiously.
b. *Furiously sleep ideas green colorless.

What exactly does this pair teach us?

Syntactic explanations

Some phenomena walk like semantics and talk like semantics – but they are syntax. Intuitions about the “right theory” are very different from intuitions about sentences. The latter are just what they are – there is little room to play with them. The former are a product of subjective bias and preference; there is every reason to put them to test. We’ll have a close look at one empirical domain where semantic intuitions proved misleading, and where syntactic accounts proved superior.

The bizarre world of psych verbs

(4) Belletti & Rizzi's (1988) classification of psych verbs

- a. Class I: Nominative experiencer, accusative theme.
John loves Mary.
- b. Class II: Nominative theme, accusative experiencer.
The show amused Bill.
- b. Class III: Nominative theme, dative experiencer.
The idea appealed to Julie.

(5) The T/SM Restriction

Pesetsky (1987, 1995) observed that the semantic roles borne by the “theme” argument in class I and in classes II/III predicates are not identical. In the first case, the “theme” object is interpreted as Target of Emotion or Subject Matter (T/SM), whereas in the second case the “theme” subject is interpreted as a Cause. This is why (a) is not contradictory:

- a. The article angered Bill but he wasn't angry at the article.

(6) Surprisingly, the two logically distinct arguments cannot be simultaneously realized; this is the T/SM restriction:

- a. * The article in the *Times* angered Bill at the government.
- b. * The Chinese dinner satisfied Bill with his trip to Beijing.
- c. * Something Bill had said bothered Mary about her future.
- d. * The distant rumbling frightened Mary of another tornado.

(7) Periphrastic causatives are not subject to this restriction:

- a. The article in the *Times* made Bill angry at the government.
- b. The Chinese dinner made Bill satisfied with his trip to Beijing.
- c. Something Bill had said made Mary bother about her future.
- d. The distant rumbling made Mary fear of another tornado.

(8) Bouchard (1995)

- a. Concept: an entity viewed externally/ neutrally.
- b. Substantive: an entity viewed internally, as a participant in an event.
- c. I(ntentional)-subject: a conscious/intentional Substantive.

Bouchard argues that the grammar makes direct reference, and in numerous constructions, to these semantic categories. The standard ambiguity of class II constructions is stated as a Concept/I-subject contrast in the subject's interpretation:

- d. Mary annoyed Bill.
[deliberately, or simply in virtue of her existence)

(9) Bouchard's explanation for the T/SM restriction

- a. The PPs in (6)/(7) are adjuncts, not arguments ("not an integral part of the construction").
- b. These adjuncts must be "controlled" by a sufficiently agentive subject.
- c. The subject is a Concept in (6), an I-subject in (7), hence the contrast.

Critique of Bouchard

(10) Theoretically, it is not clear that the novel categories in (8) are delivering any benefit that the simpler dichotomy – agentive/nonagentive – doesn't already deliver. We know that many grammatical processes are sensitive to that dichotomy; why restate it (in vaguer terms)?

(11) What's the evidence for (9a)? Optionality is not a criterion for adjuncts, since many arguments are optional (e.g., *John wrote (a letter) to Mary*). Under two relevant tests, some T/SM PPs behave as arguments, not adjuncts.

(12) Adjunct PPs allow local pronominal binding, argument PPs don't.

- a. John₁ put the tag on himself₁/*him₁. *argument PP*
- b. John₁ sensed a beetle on him₁/ ?? himself₁. *adjunct PP*

cf. c. Bill₁ was satisfied with himself₁/*him₁.

(13) Adjunct PPs can be separated from the predicate in pseudocleft, argument PPs cannot:

- a. What John was during the visit was angry. *adjunct PP*
- b. * What John was at the government was angry. *argument PP*

Conclusion: Bouchard’s undefined notion of “adjunct” is probably based on some semantic intuition. The point is that this intuition plays no explanatory role in actual analyses, and in fact is quite misleading.

(14) What’s the evidence for (9b)? Clearly the relevant PPs are unlike standard agent-oriented modifiers, since they allow inanimate subjects. Compare (6) with (b-d).

- a. Mary/*the rain deliberately washed the front stairs.
- b. This book is *about the future*.
- c. This book is concerned *with the trip to Beijing*.
- d. All the evidence points *at the government*.

(15) Bouchard’s prediction: The T/SM restriction should disappear in agentive contexts. The prediction is false (contra Bouchard’s data).

- a. * We all tried to satisfy Bill with his trip to Beijing.
- b. * Bill maliciously worried Mary about her future.
- c. * The weather man deliberately frightens people of another tornado.

This fact alone falsifies Bouchard’s proposal.

(16) **Conclusion:** Semantic intuitions alone do not guarantee any insight into syntactic phenomena. Pesetsky himself took trouble to show that the T/SM restriction is not semantic. He also cited analogous facts from “suggestive” predicates (due to Higgins 1973):

- a. John was angry at the guests.
- b. John’s tone was angry (*at the guests).
- c. John was nervous about the exam.
- d. John’s behavior was nervous (*about the exam).

(17) Pesetsky's explanation

There is more structure than meets the eye. An affixal CAUS null morpheme (which is present in every causative psych construction) must raise to the root. In a cascade configuration, the intervening preposition (heading the T/SM PP) blocks this movement. The resulting structure either violates the Stray Affix Filter or the Head Movement Constraint.

Note: The syntax is motivated by semantics (of causatives), but not dictated by it. Importantly, the analysis incorporates syntactic constraints (SAF, HMC) that are irreducible to semantics.

Class II Predicates in Romance Causatives

(18) Belletti & Rizzi (1988) noted that class II predicates cannot be embedded under causative verbs.

- a. * Questo lo ha fatto preoccupare/commuovere/attrarre ancora più Mario.
this him has made worry/move/attract even more to Mario
'This made Mario worry/move/attract him even more'
- b. Questo lo ha fatto apprezzare/temere/ammirare ancora più Mario.
this him has made estimate/fear/admire even more to Mario
'This made Mario estimate/fear/admire him even more'

B&R's analysis was syntactic and quite innovative (even if ultimately false); we'll return to it in the chapter on psych verbs, and discuss its merits and faults.

(19) Bouchard: The causee must be a "controllable Substantive" ("to have the potential to control the course of events described by the infinitival VP"). Since the subject of class II verbs as in (18a) is a Concept, the result is bad.

Prediction: i) agentive class II should be fine in caustives; that's correct, but also predicted under B&R's analysis.

- a. Gli ho fatto spaventare il candidato per farlo lavorare di più.
'I made him frighten the candidate to make him work harder'
- (20) Problems: i) The notion "controllable Substantive" is yet a novel notion. It is extremely hard to define, and involves imaginative capacities quite unlikely to be involved in grammar; (ii) furthermore, to the extent that this notion makes any concrete predictions, examples like the following (Kayne 2002) refute it.
- a. Ce qui est arrivé a fait perdre de l'importance au fait que
that which has happened has made lose (of the) importance to-the fact that
Jean aime Marie.
John loves Mary
'What happened made the fact that John loves Mary lose importance'
- (21) Alternative: Causative formation involves case alternations. In particular, the original case of the embedded direct object is suppressed, and instead it is assigned structural accusative case by the matrix causative verb. If the case of the object experiencer is oblique (involving a null preposition), this process will be blocked and the case alternation fail.

Causative nominalizations of class II predicates

- (22) Class II verbs don't have causative nominalizations (Lakoff 1970).
- a. Bill's continual agitation about the exam was silly.
b. Mary's constant annoyance about/at/with us got on our nerves.
c. * The exam's continual agitation of Bill was silly.
d. * Our constant annoyance of Mary got on our nerves.
- (23) Grimshaw (1990) argued that, in fact, class II nominalizations have either the result reading or the agentive event reading, but not the non-agentive event reading (event reading involves argument projection, result reading doesn't).
- a. The embarrassment/humiliation of the bystanders.
b. The amusement/entertainment of the children.

- c. John's/*the event's embarrassment/humiliation of Mary.
- d. The clown's/*movie's (constant) amusement/entertainment of the children.

However, (c,d) are not typical; most class II nominalizations are never eventive, regardless of agentivity (Iwata 1995).

- e. * John's deliberate amazement/depression/pleasure/delight/disgust/interest of Mary.

Iwata's (1995) account

- (24) Class II predicates are causatives, but their causative component is “weak” (non-salient):

[CAUSE_R ([X], INCH [BE ([Y], [AT MENTAL-STATE ([AT_t Z])])])])]

X: Causer, Y: Experiencer, Z: Target/Subject Matter

So, *The noise irritated Mary* is represented at Conceptual Structure roughly as:
The noise (nonsaliently) caused the becoming of the state of Mary's being at the mental state of irritation.

- (25) Evidence: Adverbial modification targets the resultant state, not the causing event.

- a. This rather annoyed/disappointed/impressed Mary.
- b. ⇒ Mary was rather annoyed/disappointed/impressed.

Note: More is going on, since most accomplishment verbs with gradable resultant states are incompatible with *rather*:

- b. * We rather cleaned/filled the room.
- c. The room was rather clean/full.

Psych verbs and adjectives share some other semantic feature, unrelated to “low salience causation”, which is not captured by Iwata.

Second, Iwata notes that manner adverbs take on a degree reading with class II:

- d. The cavern frightened Mary horribly.
[i.e., The cavern frightened Mary greatly, *not* in a horrible manner]
- (26) Nominalization deletes the Cause_R role. “It is reasonable to suppose that an item’s deletability is closely connected with its saliency... the outer Cause_R function, which has low saliency ... is deleted, while the embedded emotional state, which constitutes the core, is preserved”.

Critique of Iwata

- (27) The intuition behind (24) has something to it. Many people have noticed that the causation involved in class II predicates is not normal; it seems to involve immediate perception of a stimulus, triggering the “resultant” mental state already at the beginning of the event.

Still, whether the intuition has any *syntactic* force is far from clear. The only tests for “non-salient” causer are the adverbial-tests in (25). These seem pretty much like tests for *statives*; yet Iwata can’t argue that class II are *statives*, given that they are compatible with the progressive (e.g., *The movie is really scaring the children*). Moreover, adverbial modification of resultant state is found with other verbs, which crucially are incompatible with *rather*:

- a. He rang the bell loudly (⇒ The bell rang loudly)
b. He (*rather) rang the bell.

So, the *rather*-test and the manner adverb test diverge; which are we to take as diagnostic of Cause_R?

- (28) The greater problem lies in (26); why should nominalization ever delete a component of the conceptual structure of a predicate? What is the principled link between the morphosyntactic realization of the predicate and its conceptual structure? Iwata’s account, being purely semantic, does not address this important question. Without such an account, a major step in the analysis remains arbitrary.
- (29) Just as with Bouchard’s account of the T/SM restriction, Iwata predicts that agentive class II nominalizations should be OK; but in fact, in many cases they are not, as he himself observed in (23e). One can construct minimal pairs:

- a. John deliberately disgusted/annoyed/surprised Mary.
 - b. * John's deliberate disgust/annoyance/surprise of Mary.
- (30) Alternatives: Appeal to hidden structure, that is subject to well-understood constraints on word-formation. Pesetsky (1995) appealed to Myer's generalization, which bans affixation to zero-derived words (recall that CAUS is null). McGinnis (2000), working in Distributed Morphology, assumed that causative psych predicates must be formed with the verbalizer light *v*, hence cannot be nominalized. At any rate, such accounts attempt to apply some known property of syntax/morphology to the domain of psych verbs, and derive the various effects without direct recourse to semantic notions.

Synthetic compounds

- (31) Grimshaw (1990) observed that the "theme" of class I verbs can occur as the non-head of a synthetic compound, but that of class II verbs cannot:
- a. a god-fearing man, a fun-loving teenager
 - b. *a man-frightening god, *a parent-appalling exploit

Grimshaw's account: (i) the argument in the compound must be thematically lower than the argument left outside; (ii) the non-experiencer argument in both classes I and II is a theme, which is thematically lower than the experiencer.

Evidence for (i): On the assumption that Goal is higher than Theme, we explain:

- c. gift-giving to children / *child-giving of gifts

Critique of Grimshaw

- (32) (31-ii) is no longer tenable. "Theme" is a cover term for Causer in class II and Target/Subject Matter in class I (see Pesetsky 1995, among others). The actual hierarchy is: Causer>>Experiencer>>T/SM.

(33) The assumption that Goal is higher than Theme is contentious (see Larson 1988, Baker 1997). Baker also notes a lethal fact for Grimshaw – goal-compounds are impossible even in the absence of (the optional) theme, as in (a).

a. *child-reading, *spy-telling, *friend-writing

Baker (1997) suggested that the true generalization underlying these facts is quite simple: Prepositions cannot occur inside compounds; see (b).

b. *charity-(on)-depending, *stranger-(in)-confiding

So, whether an argument requires an overt preposition (33b) or a null one, as the goal in (31c)/(33a) it is excluded from compounds. Baker points out that this explanation naturally extends to (31b) – on the crucial assumption that object experiencers are introduced by a (dative-like) null preposition.

Summary

Psych verbs provide an excellent example for the limits of “intuitive linguistics”. Semantic intuitions can serve as useful probes into various problems, but cannot deliver explanatory analyses by themselves; *syntax is necessary*. The underlying assumption of Bouchard, Iwata and Grimshaw is that concepts drawn from Conceptual Structure or Argument Structure interface *directly* with grammatical phenomena, without the mediation of syntactic structure and constraints; this assumption is often false.

Caveat

It’s not always false. Some phenomena that syntacticians insist on analysing turn out to be semantic in nature. Again, psych verbs provide an excellent example.

Backward binding

Postal (1971) argued that the fact that experiencer objects can bind anaphors embedded inside the subject tells us something about their special syntax. This idea was resurrected by Hermon (1985), Stowell (1986) and Belletti & Rizzi (1988), and later adopted, in a different form, by Pesetsky (1995):

- (34) a. Each other's supporters worried Freud and Jung.
b. Each other's remarks annoyed John and Mary.
c. * Each other's parents harmed John and Mary.
d. * Each other's teachers insulted John and Mary.

For all the above authors, the required structural relation between the experiencer and the anaphor is satisfied at some non-surface level (D-structure or LF). Hence, these cases fall under condition A, properly construed.

- (35) Subsequent research has challenged the claim that backward binding falls under Condition A, or indeed, that it is even a structural phenomenon (Zribi-Hertz 1989, Bouchard 1992, Pollard & Sag 1992, Reinhart & Reuland 1993).

(i) Backward binding is licensed by the causative nature of the construction rather than its psych properties:

- a. Each other's remarks made John and Mary angry.
b. Pictures of himself give John the creeps.
c. Pictures of each other caused John and Mary to start crying.
d. Each other's criticism forced John and Mary to confront their problems.

(ii) C-command plays no role in backward binding – not even at DS or LF – as can be seen in the following examples:

- a. The picture of himself in *Newsweek* shattered the peace of mind that John had spent the last six months trying to restore.
b. These nasty stories about himself broke John's resistance.
c. These rumors about himself caught John's attention.

Conclusion: Backward binding should be classified with *logophors*, whose antecedent must be a subject of consciousness or a participant whose point of view is evaluated in the discourse (see Zribi-Hertz 1989, Sells 1987). It is not a purely structural phenomenon, hence does not attest to any specific feature in the syntax of psych verbs.