A copular clause mystery: pragmatics and lexical semantics

This paper addresses a puzzle initially pointed out by Potts (2002) in the characterization of CP-modifying parenthetical as- and which-clauses (1): namely, which, but not as, allows a CP-equative clause (2). Potts accounts for this difference in terms of nominalized propositions (Chierchia 1984) and semantic-type mismatch. This paper demonstrates that the issue is much deeper: the nominalization account is insufficient for explaining the equative clause asymmetry, and in fact rules out a class of grammatical structures. I argue that the contrast in (2) is at its base information-structural and lexical-semantic, and extends beyond nominal copular clauses to clauses with adjectival predicates.

**Background:** Potts argues that copular clauses involving CPs ([CP be DP] and [DP be CP]) are equative clauses (3) and as such require type-identity among both arguments (Heycock and Kroch 1999; H&K). The CPs must thus be type-shifted to denote in <e,t>. This would explain the goodness of (2a), as type-shifting the CP subject would leave [r was the problem] in type <e,t>, compatible with Potts' denotation for which (4a). Because as (4b) cannot compose with an <e,t> constituent, (2b) is ruled out.

**Problems:** First, it is unclear that the copular clauses in (2) are, in fact, equatives. Rather, [CP be DP] (the crucial structure in (2)) seems to in fact be predicational: the final DP is not non-restrictively modifiable (5), and small clauses, which exclude equational readings, show [CP DP] to be marginal, but [DP CP] to be completely out (6) (tests from H&K). Indeed, the clearly-equative pattern of [DP be CP] resists as/which (7). The equative-based account thus cannot distinguish the predicational (2b) from the grammatical as was customary. Second, consider (8): the predicates be customary and be apparent, if they denote in <e,t> as commonly assumed (Heim and Kratzer 1998), require CP external arguments to undergo nominalization—but this is exactly what Potts argues must be the case for equatives. Ruling out (2b) by appeal to nominalization and semantic-type mismatch thus incorrectly rules out (8) and indeed any case of as in subject position. Shifting the semantic type of the predicate—perhaps in this context they denote in <st,st>—results in rampant polymorphism in the lexicon, an undesirable outcome (Potts 2002:71). Maintaining an <e,t> denotation for predicate adjectives makes ruling in (8) by type-shift of the subject CP inevitable, but this rules in (2b) as well. But, as will be shown, this is not entirely undesirable.

**Solutions:** Note first that some sentences of the form [as be DP] are in fact perfectly grammatical (9). Nouns that head definite DPs in such a context include case, custom, tradition, way, and wont. Indefinite DPs such as a problem are grammatical even where the problem is out. What such DPs have in common is that they may participate in clausal extraposition (10). Postal (2004:ch1) argues that this indicates that (9) involves extraction of as not from subject position, but from extraposed position; in subject position is instead a null expletive. This account founders on the fact that, given proper context, even examples like (2b) can be made grammatical, or at least simply marginal (11), even though the corresponding extraposed structures are illicit (12). A direct connection to extraposition is thus tempting but untenable. At the same time, the sentences in (11) indicate that (2b) need not be unilaterally ruled out.

Predicative adjective phrases show an asymmetry similar to that in (2). An examination of all cases of [as be Adjective] in the British National Corpus indicated that only a narrow class of adjectives are possible: those that indicate predictability (clear, common, predictable, obvious, usual), typicality (appropriate, common, natural, normal, proper, traditional), and likelihood (likely, necessary, possible). Adjectives with other meanings are vanishingly rare or non-existent (problematic, amazing). This is in contrast to which, which allows a wider range (13).

I propose a pragmatic account of the above patterns. The most commonly attested post-copular DPs involve nouns like case, custom, etc. These have in common with all the adjectives listed above the fact that they do little more than confirm the truth of the matrix clause (especially true for as is the case and as is true), adding little more than quantification or modality (“x is most/traditionally/properly true”). This is fully commensurate with the observation by Pullum and Huddleston (2002:1148) that which may introduce new information to or advance the discourse, while as must confirm old information or introduce backgrounded information. When a semantically “heavier” DP is present (9a, 11), it must be indefinite or be contextualized away from the current speech situation: Money is scarce, as was the problem for many of them is fine, but #...as is our current problem is infelicitous. In the end, the contrast in (2) is a red herring: the tip of a phenomenon that is not simply syntactic or semantic but also pragmatic.
(1) The Earth revolves around the sun, as/which we have already shown __, to be the case.

(2) a. We seem to have used up all of our money, which was the problem.
   b. * We seem to have used up all of our money, as was the problem.

(3) The problem is that we don’t have enough money. That we don’t have enough money is the problem.

(4) a. \[ [\text{which}] = \lambda f \in D_{\infty} \cdot [\lambda x \in D_{\infty} : f(x) \text{ is true } [x^p]] \]
   b. \[ [\text{as}] = \lambda Q \in D_{\infty} \cdot [\lambda p \in D_{\infty} : Q(p) \text{ is true } [p]] \]

(5) * That she was underqualified when we hired her, which Jason informed us of last week, was the problem (we were facing), which Sue raised last week. (cf. “Sue raised a problem last week”)

(6) a. ? I consider that she was underqualified the problem. ([CP DP])
   a’. ? That she was underqualified was considered the problem. (6a in passive)
   b. * I consider the problem that she was underqualified. ([DP CP])
   b’. * The problem was considered that she was underqualified. (6b in passive)

(7) * She was underqualified, as/which the problem was.

(8) As was customary/as should have been apparent, several divisions were secretly taking money.

(9) a. The sequel avoided bad scripting, as was a problem/issue with the first film. [modified from attested sentences]
   b. He left without saying anything, as was his way / his wont / the custom / the tradition / often the case.

(10) a. It’s (often) the case/the tradition/the custom that the host holds upon the door.
    b. It’s his way/wont to act like that.
    c. It’s a problem/an issue that we used up all our money.

(11) a. Have you checked your logs to see if it is a dead database, as was the problem for this person? [attested]
    b. As is the problem for many young people facing choices of potential gang involvement, the pressure to join can be high. [attested]

(12) * It’s the problem (for many people) that they don’t have enough money.

(13) a. They were unaware of the deeper issue, as was usual/typical/common/obvious/*amazing.
    b. They were unaware of the deeper issue, which was amazing/cruel/deprrssing/obvious/typical.

References


