

## *Generic truth and mixed conjunctions: some alternatives*

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Christine Tappolet (2000) posed a problem for alethic pluralism: either deny the truth of conjunctions whose conjuncts are from distinct domains of inquiry, or posit a generic global truth property thus making other truth properties redundant. Douglas Edwards (2008) has attempted to solve the problem by avoiding the horns of Tappolet's dilemma. After first noting an unappreciated consequence of Edwards's view regarding a proliferation of truth properties, I show that Edwards's proposal fails to avoid Tappolet's original dilemma. His response is not successful, as it lets in a generic truth property through the 'back door'. I conclude by briefly offering a new solution to the problem, and an alternative diagnosis of Tappolet's dilemma.

### *1. Tappolet's dilemma*

The alethic pluralist (e.g. Lynch (2004); Sher (2004); Wright (1992)) contends that propositions from different domains can be true in different ways. Mixed conjunctions have conjuncts from different domains; consider for example, '1+1=2 and murder is wrong'. A pressing question for the pluralist: if each conjunct is true in a distinct way, in what way is the conjunction true? Tappolet (2000: 385) argues,

[M]ixed conjunctions need to be true in a further way. . . . But then each conjunct has to be true in the same way. This is what follows from the truism that a conjunction is true if and only if its conjuncts are true. Hence the question arises again why this further way of being true is not the only one we need.

Edwards puts Tappolet's contention as a dilemma: either admit a generic truth property that can apply to all propositions, regardless of domain or deny that mixed conjunctions can be true. It is *prima facie* plausible that mixed conjunctions can be true. Moreover, admitting a generic truth property would seemingly undermine alethic pluralism by making other truth properties redundant.

### *2. Edwards's solution*

Edwards's solution attempts to avoid both horns of the dilemma. He questions Tappolet's assumption that each conjunct must be true in the same way as the mixed conjunction itself.

The correspondence theory of truth endorses (1) and (2), identifying truth with the property of ‘*corresponding to a fact*’.

- (1)  $p$  is true (corresponds to a fact).
- (2)  $q$  is true (corresponds to a fact).

But must the correspondence theorist also admit (3)?

- (3)  $p \& q$  is true (corresponds to a fact).

Edwards rightly notes that if the correspondence theorist does not admit conjunctive facts into her ontology, she is left in Tappolet’s dilemma: either deny that conjunctions can be true or admit a non-correspondence notion of truth that applies to conjuncts as well as conjunctions. So, Tappolet’s objection is a problem for *pluralists* only if it is a problem for other *monistic* theories of truth.

Edwards suggests that rather than accept the dilemma, the correspondence theorist can endorse (4).

- (4)  $p \& q$  is true *by virtue of*  $p$  corresponding to a fact and  $q$  corresponding to fact.

While the way in which  $p \& q$  is true is derivative and entirely dependent on the truth of its conjuncts, the reverse direction of dependency does not hold. Edwards thinks a similar reply is available to the alethic pluralist. The pluralist can explain the truth of mixed conjunctions by (5).

- (5)  $p \& q$  is true *by virtue of*  $p$  being true and  $q$  being true.

Edwards admits that the conjunction must be true in some way distinct from the ways the conjuncts are true, but he denies that this third truth property needs to be had by each conjunct. Here lies a mistaken assumption in Tappolet’s dilemma.

### 3. *Generic truth*

One is now left with a further question: just what is this distinct third way in which the conjunction is true? Since conjunctions must be true in some different way from atomics, one would like to know a bit more about the property. Edwards (2008: 148) offers little explanation.

The further way that the conjunction is true is such that the truth of the conjunction is dependent on the truth of the individual conjuncts.

In the light of Edwards’s solution for the correspondence theorist, it appears he must be thinking along the following lines:

- (6)  $p$  is true (is true<sub>1</sub>).
- (7)  $q$  is true (is true<sub>2</sub>).





#### 4. *A new solution and an alternative diagnosis*

There are very few solutions to Tappolet's dilemma proposed in the literature.<sup>5</sup> In what follows, I provide a new solution to the problem that does not, as far as I can see, require a generic property of truth. And since it does not require the truth of conjunctions to be true in some distinct way, the new solution does not result in a proliferation of truth properties.

The solution trades on the fact that there are natural solutions to analogous problems with negations and mixed disjunctions. Mixed negations of atomics do not exist, and so a negation is true in the same way that its negand is false (or false in the same way the negand is true). That is, we allow  $\sim p$  to have the truth property for the domain of  $p$ . For negations of compounds, the same solution is available: a negated compound is true in the same way(s) the compound is false (or false in the same way(s) the compound is true). The more difficult cases concern other compounds. We might naturally suggest that a disjunction  $p \vee q$  is true in the same way its true disjunct is. Supposing  $p$  is in domain  $m$  and  $q$  in domain  $n$ , let the disjunction be true <sub>$m$</sub>  if  $p$  is true <sub>$m$</sub> , and let it be true <sub>$n$</sub>  if  $q$  is true <sub>$n$</sub> . If both disjuncts are true, let the disjunction be true in both ways. Likewise, if a disjunction is false, it is false in both ways the disjuncts are false.

These seem to be natural responses for negations and disjunctions. But if our propositional logic has De Morgan principles,  $p \& q$  is equivalent to  $\sim(\sim p \vee \sim q)$ . It is available to the pluralist simply to treat conjunction as a *defined* connective, and to suggest that mixed conjunctions are true in a parallel way to mixed disjunctions. So,  $p \& q$  is true in the way that  $\sim p \vee \sim q$  is false (by the truth conditions for negation). But  $\sim p \vee \sim q$  must be false in the way that  $\sim p$  is false and the way that  $\sim q$  is false (by the falsity conditions for disjunction). We have it that  $\sim p$  is false in the same way that  $p$  is true, and  $\sim q$  is false in the same way that  $q$  is true (by the falsity conditions for negation). Therefore,  $p \& q$  will have the truth property for  $p$  and the truth property for  $q$ , but need not be true in some further way.

This solution seems promising as it does not generate a generic truth property, it requires no distinct truth property for compounds, and it treats all truth-functional connectives in a unified way.<sup>6</sup> If, as Edwards appears to think, pluralists *are* required to do without a generic property of truth, there may be reason to explore this solution further.

5 Most of the literature is aimed at a related, yet different, problem of mixed *inferences* which is due to Tappolet (1997). See Beall 2000 and Pedersen 2006. The only published discussions of the mixed *conjunction* problem appear to be Williamson 1994, Tappolet 2000, Edwards 2008 and Lynch 2004. Lynch's forthcoming book (2009) also provides an extensive treatment.

6 Non-truth-functional compounds may well present further problems for pluralists, but discussion of this would be beyond the scope of this article.

I should note, however, that I do not endorse the above solution. This is because I see no reason to think that pluralists must avoid Tappolet's dilemma. In particular, while some pluralists reject the existence of a single generic truth property,<sup>7</sup> I suggest that Tappolet is wrong to argue that a single generic property of truth would make other truth properties redundant.

Consider, for example,  $\text{true}_c$  above. An acceptance of  $\text{true}_c$  as a generic notion of truth would not make  $\text{true}_1, \dots, \text{true}_n$  redundant or unnecessary. Since  $\text{true}_c$  is defined as a disjunction of  $\text{true}_1, \dots, \text{true}_n$ , it depends on these truth properties. On the contrary, it would seem that the existence of  $\text{true}_1, \dots, \text{true}_n$  would make  $\text{true}_c$  redundant, were it not for the problem of mixed conjunctions. In general, I suggest a pluralist can accept a generic truth property only if the generic property is defined by (or 'essentially' dependent on) the other truth properties.

Does accepting a generic truth property undermine the motivations for alethic pluralism? Pluralists often cite the varied and radical differences between propositions as their main motivation for positing multiple truth properties.<sup>8</sup> But defining a generic property of truth by disjoining the many domain-relative truth properties hardly undermines this motivation. The disjunctive property is *generic* only because the domain-relative properties have already captured the differences between the domains. The charge is akin to claiming that there is no difference between apples and numbers since one can always define a property of *being either an apple or a number*.

Contrary to Edwards, his solution to the problem of mixed conjunctions does *not* avoid a generic truth property. What pluralists should learn from this, however, is that a generic truth property need not be avoided.<sup>9</sup>

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7 For the most prominent example, see Wright's (1992) denial of a generic truth property.

8 See Lynch's *scope problem* (2004, 2009), or Sher's *disunity challenge* (2004).

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