Middle Voice in Indonesian: A Syntax/Semantics Mismatch

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"Middle voice" predicates are those that in some languages share a unique marker known as a "middle marker", and often include inherently reflexive predicates such as body care verbs, anticausatives, and "middle constructions" (*This car sells easily*), among others. Kemmer (1993) offers a unified analysis of middles as indicating "low elaboration of events" — some aspect of the event is not fully elaborated — the most canonical case being when the agent and patient are not distinguished, deriving a reflexive reading. However, not all middles are amenable to a low elaboration analysis, especially middle constructions, and middle markers often double as passive markers, also not easily amenable to a low elaboration analysis. Based on data from Indonesian *ber*- middles (Kardana 2011), we propose that middle voice instead reflects a syntax-semantics mismatch: middles are combinatorically monadic but semantically relational. Different middles emerge as different universal and language-specific strategies for resolving the mismatch.

Intransitive body care *ber*- verbs (among others) have a reflexive reading and allow optional reflexive clitic *diri*, though not the full reflexive pronoun *dirinya*) (cp. the transitive *meN*- form).

(1)	a. Tono _i ber-dandan (diri _i /*dirinya).	b. Tono men-dandan Ali/diri/dirinya
	Tono MV-dressed REFL/REFL.3POSS	Tono AV-dressed Ali/REFL/REFL.3POSS
	'Tono dressed (himself).'	'Tono dressed Ali/himself.'

Ber- also marks middle constructions (2), which are non-reflexive, instead entailing a separate agent like a passive, yet fail passive tests (e.g. disallowing purposive modifiers).

(2) [Orang itu]_i ber-jual (*[PRO_{j/*i} untuk men-erima komisi 10%]). man that MV-sell to AV-receive commission 10% 'The man sold (*to receive a 10% commission).' (e.g. sold into slavery)

A further non-reflexive *ber*- usage (3) expresses the agent as the subject and the patient as a bare N(P), non-separable from the verb and allowing postnominal adjuncts but not determiners (though there may be speaker variation on this last point; see Fortin and Soh in press).

(3) Orang itu ber-jual (*dengan cepat) sayur hijau/*itu. man that MV-sold with quickness vegetable green/this 'That man sold his green vegetables.'

The last two are clearly not reflexive, nor is there "low elaboration" of events, especially in (3).

We suggest instead that the primary function of *ber*- is to decrease the syntactic valency of the base verbal predicate by one but preserving its truth-conditional content (building on Beavers and Zubair 2013 on Colloquial Sinhala anticausatives). More specifically, *ber*- is a Voice head taking a VP argument (Soh 2013) and saturating its first open (non-event) argument with an open variable:

(4) $\llbracket ber- \rrbracket = \lambda P_{\langle e, \alpha \rangle} [P(\underline{x})]$

The various middles arise from the interaction of this operation with two syntactic frames, plus root class-specific interpretative facts. If the verb occurs in an unaccusative syntactic frame, thus taking a deep DP object that later raises (which we argue holds for (2) and (1a) when there is no *diri*), then first open argument of the VP is its base subject, which *ber*- saturates.

(5) a. [[jual orang itu]] = λxλe[sell'(e) ∧ agent'(e, x) ∧ theme'(e, the.man)]
b. [[ber-jual orang itu]] = λe[sell'(e) ∧ agent'(e, x) ∧ theme'(e, the.man)]

Assuming open \underline{x} must be interpreted somehow, an existentially-bound (2) or reflexive (1a) reading arises depending on whether the V is inherently reflexive (Alexiadou and Doron 2012). Alternatively, if the V occurs with a bare NP, this triggers classifier-incorporation (Mithun 1984) by which the incorporated NP constrains the interpretation of the V's first argument but does not saturate it.

(6) $[[jual=[_{NP} sayur J]] = \lambda x \lambda y \lambda e[sell'(e) \land agent'(e, y) \land theme'(e, x) \land vegetable'(x)]$

In this case the VP's first open semantic argument is its base object, which is thus saturated by *ber*-, and the surface subject is the VP's semantic subject, producing a quasi-transitive syntax.

(7) $[[ber-jual=[_{NP} sayur J]] = \lambda y \lambda e[sell'(e) \land agent'(e, y) \land theme'(e, x) \land vegetable'(x)]$

A reflexive reading arises if the incorporated NP realizing \underline{x} is *diri* (1a), else \underline{x} is \exists -bound (3).

Independent evidence for this analysis comes from uses of *ber*- with nominal bases, which have a possessive reading and also show signs of incorporation (allowing adjuncts but not Ds):

 (8) Tono ber-topi/ber-istri/ber-kaki baik (*itu). Tono MV-hat/MV-wife/MV-leg good (this)
 'Tono has a good hat/a good wife/good legs.'

Crucially only relational nouns, which are dyadic (Partee 1999) (9a), allow this. Incorporation is obligatory to host *ber*-, which thus saturates the possessee; leaving the possessor as subject (9b).

(9) a. $[[istri]] = \lambda x \lambda y \lambda e[possess'(y, x) \wedge hat'(x)]$ b. $[[ber-istri]] = \lambda y \lambda e[possess'(y, x) \wedge hat'(x)]$

Thus (8) follows from the proposed analysis of (1a)-(3), if ber- takes any category of complement.

Thus middle voice in Indonesian indicates not low elaboration of events but rather a syntaxsemantics mismatch wherein some underlying argument within the base predicate cannot be realized as a canonical direct dependent. This analysis is extensible to other languages as well, albeit with cross-linguistic variation in which strategies a given language will have for expressing the otherwise unrealized argument. The analysis provides a unified way to link middle voice to middle constructions (and, as we show in the talk, passives and anticausatives in languages in which these share middle marking), something difficult to do under a low elaboration or reflexive analysis.

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