# Appendices

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# A Summary and Evaluation of David Dowty's "Thematic Proto-roles and Argument Selection"

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# 1 Introduction

The purpose of this paper is to provide an overview and critical evaluation of the most significant points made by Dowty in his 1991 paper *Thematic proto-roles and argument selection*.

First, a number of problems occuring with the problem of thematic roles are outlined. They will provide the basis for the main part, which is the summary of Dowty's proposal for future research on the topic, and the subsequent theory of thematic proto-roles he offers as a partial solution to the problems occurring in the field. Due to the limits of this paper, only a very brief outline can be given of the aspects addressed in Dowty (1991). With thematic roles and the way they tie in to argument selection being of primary concern, the focus is on the main points with respect to the topic, so that it is not possible to provide all the various aspects Dowty (1991) includes in his discussion – for instance, related proposals as well as large parts of multiple argument configurations and the unaccusative hypothesis had to be excluded here.

Before starting with the summary of Dowty (1991) proper, note that some of the linguistic examples are given in Spanish or German, but they are not part of Dowty's paper itself. As Dowty mainly provides English examples but claims for his approach to be applicable to any language, the examples in Spanish/German should be a modest step in the direction of examining this point.

The motivation for Dowty to write *Thematic proto-roles and argument selection* was certainly the basic problem when it comes to thematic roles proper: the lack of consensus about their actual nature and definition in government binding (GB) theory, even though thematic roles have played an important role with regard to formulating syntactic generalizations and argument indexing (cf. Dowty 1991:547). As a consequence, the fragmentations of roles and their boundaries, respectively, are a much debated issue (cf. Dowty 1991:553). The role AGENT, for instance, is among the "most frequently cites roles" and, in a way, "very intuitive" (Dowty 1991:553), but also very hard to define; Lakoff (1977), for example, offered fourteen distinct characteristics of 'agency' (cf. Dowty 1991:553–554).

In connection with these facts, Dowty (1991: 557) notes that linguists tend to confuse generalizations stated with regard to thematic roles "with generalizations of other kinds – syntactic generalizations, semantic generalizations (other than ones involving thematic roles per se), or pragmatic generalizations."

# 2 Proposal for semantic research on thematic roles and its consequences

What is missing in the first place is "a principled way to decide what kind of data motivates a thematic role type" (Dowty 1991: 561). A solution proposed by Dowty (1991: 561) is to stick to natural class boundaries in the division of what is considered a role, in order to account for non-arbitrary separation. Each domain<sup>1</sup> is to get its own (best-motivated) theoretical account, excluding earlier approaches that involve data of other domains (cf. Dowty 1991: 561). Should two domains independently result in the same theory/inventory of thematic roles, one common basic phenomenon could be assumed (cf. Dowty 1991: 561). Conversely, differences should be accepted as an indication of an account of just one part of the whole complex concept (cf. Dowty 1991: 561).

Of primary concern here is the argument selection phenomenon, that is, the question of which linguistic principles guide the connection between the (intuitive) expression of every single argument of an *n*-place relation that a predicate denotes and its grammatical relation; for instance, if AGENT and THEME are the roles of the two arguments of a transitive verb, then the Agent is subject and the Theme object (cf. Dowty 1991: 560–562). The underlying rules of syntactic configurations for verbal arguments<sup>2</sup> Dowty (1991: 562) terms ARGUMENT SELECTION PRINCIPLES (involving both subject and direct/oblique objects).

Given the above considerations, two principles for further investigation are proposed:

- (A) a theory of thematic roles will not be based on semantic criteria/distinctions (expect for there should be an example – of a traditional role or not – in any language to prove necessary for argument selection) (Dowty 1991: 562);
- (B) following from (A), any semantic distincting proving relevant for argument selection is taken into account for a possible definition of a role type – whether traditional or not (cf. Dowty 1991: 562).

#### 2.1 Excluding event-dependent and perspective-dependent thematic roles

As a consequence of the second prinicple (B) above, Dowty (1991: 562–563) exludes from further discussion those thematic roles, whose assignment is fixed no matter how the point of view changes within an event:<sup>3</sup> Agent, Patient, Experiencer, Theme (with a few

<sup>&</sup>lt;sup>1</sup> Being, for example, argument selection, argument indexing, language acquisition, and so on (Dowty 1991: 561)

<sup>&</sup>lt;sup>2</sup> See also case grammar and its account for these configurations by semantic deep cases (Gruber 1965) vs. Chomsky's (1965) deep structures and transformations (cf. Dowty 1991: 562).

<sup>&</sup>lt;sup>3</sup> The same fixed assignment is found with any other syntactical alternation, use of synonyms and the like (Dowty 1991: 563).

exceptions), Source, Goal, 'adjunct' roles, and so on.

(1) Spanish

a.	<b>Agent</b> <i>Pablo</i> P.		<i>da</i> gives			de		<b>Source</b> <i>bibliotect</i> library		Goal María. DAT M.
	'Pablo	gives Mar	ía the b	ook f	rom the	librai	ry.'			
b.		<i>recibe</i> <b>receive</b> .P	rs.3sg	'		el		de		<b>Source</b> <i>biblioteca</i> . library
	'María	receives t	he bool	k fron	n the lib	rary fi	rom Pa	blo.′		
c.	Т	heme				Agen	t	S	ource	e Goal

*El libro está pasado por Pablo de la biblioteca a María.* DET book PASS is.moved INS P. from DET library to M. 'The book from the library is passed to María by Pablo.'

He also excludes the case of Theme together with stative predicates (Gruber 1965), where the Theme role is exclusively bound to the grammatical subject:<sup>4</sup>

(2) Spanish

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a. Theme
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*La* escuela está a la izquierda d-el parque. DET school is.LOC to the left of-DET.M park 'The school is to the left of the park.'

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b. Theme
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*El parque está a la derecha de la escuela.* DET park is.LOC to the right of DET.F school 'The park is to the right of the school.'

# 2.2 Introducing incremental theme

As a second consequence of the principle (B) above, Dowty (1991: 567) deems it necessary to propose INCREMENTAL THEME as another category to be counted under the rubric of thematic roles.<sup>5</sup> It is assigned to telic predicates (i.e. accomplishments, achievements) whose interconnection of aspect and NP arguments can be formally described by saying that "the meaning of a telic predicate is a homomorphism from its (structured) Theme argument denotations into a (structured) domain of events, modulo its other arguments" (Dowty 1991: 567).

<sup>&</sup>lt;sup>4</sup> See also Talmy's (1978; 1985a; 1985b) terminology of 'figure' (= Theme) and 'ground' (= Location) (quoted in Dowty 1991: 563).

<sup>&</sup>lt;sup>5</sup> The notion was actually also noticed and "most fully developed formally by Manfred Krifka" (Dowty 1991: 567), see Krifka (1987, 1989).

A monomorphism (borrowed from mathematics) is thus a structure-preserving function, that is, for telic predicates it is their part-whole relationship which is preserved (cf. Dowty 1991:567). Dowty (1991:567) explains this in detail by using the example *mow the lawn*: the predicate (*mow*) maps the Theme denotation (*lawn*) unto an event (*mowing*) as well as the subparts of the Theme (parts of the *lawn*) onto subevents of the event (subevents of *mowing*) (cf. Dowty 1991:567). However, none of these subparts and subevents, respectively, are on their own to be considered the whole Theme ('lawn') or the main event ('mowing') (cf. Dowty 1991:568).

In this homomorphism claim, Dowty (1991:567) sees the reason why mass-term arguments and bare plurals can make a telic sentence like (3a) seem atelic:

- (3) Spanish
  - a. *María com-i-ó un pedazo de pan (en una hora).* M. eat-PST-3SG DET slice of bread (in DET.F hour) 'María ate a slice of bread (in an hour).' ['perfective']
  - b. *María com-i-ó pan (durante una hora / \*en una hora)*M. eat-PST-3SG bread (during DET.F hour / in DET.F hour)
    'María ate bread (during an hour / \*in an hour).' ['durative'; atelic]

Generally, Incremental Themes can be assigned to "traditional 'effected' objects, 'destroyed' objects, and objects entailed to undergo a definite change of state ... But it turns out that many traditional Themes ... are not Incremental Themes" (Dowty 1991: 568).<sup>6</sup>

As an extension of Incremental Theme, Dowty (1991: 568) introduced HOLISTIC THEME and REPRESENTATION-SOURCE THEME; the former is exemplified by the sentence *John drived from New York to Chicago* (Dowty 1991: 568). Since *John*, who changes his state/position, remains a 'complete person' nevertheless, he is to be considered the Holistic Theme; he is incremental only because of some relation to the 'real' Incremental Theme, which is the path (Dowty 1991: 569).<sup>7</sup> The Representation-Source Theme, in turn, is represented by for example *photograph a scene*: the source object structure (*a scene*) is indirectly reflected in the event of creating a representation (*photograph*) (cf. Dowty 1991: 569–570). In that, it is similar to the notion of Incremental Theme outlined above, since the reflected parts are an incomplete representations and thus also a proper part of the object (cf. Dowty 1991: 569–570).

Dowty (1991: 570–571) notes that Incremental Theme *subjects* are found, for example, with certain transitive predicates (*John passed the bridge*), and some of which even allow the subject, the object, or both to be Incremental Themes if denoting regions (*The ash cloud covered the island within two days*).

<sup>&</sup>lt;sup>6</sup> For instance atelic verbs, that is those with no definite change of position/state (e.g. *dim the lights*), and those that are not homomorphic (e.g. *die*) (Dowty 1991: 568)

<sup>&</sup>lt;sup>7</sup> This path is however not syntactically realized here (cf. Dowty 1991: 569).

# **3 Proto-role theory**

Since thematic roles are not regarded as "discrete categories" but rather "cluster concepts" (Dowty 1991: 571), it is assumed that arguments show "different 'degrees of membership' in a role type" (Dowty 1991: 571). Thus, Dowty (1991: 571–572) claims that there are only two role types necessary for the description of argument selection, which he terms PROTO-AGENT and PROTO-PATIENT, offering a list of verbal entailments for the respective arguments.

Consider the following examples from German:<sup>8</sup>

# (4) Contributing properties for the Proto-Agent role

a. **volition** (includes deliberate refraining from an action)

Peterdenk-tanMaria.P.think.PRS-3SGofM.'Peter thinks of Maria.'

b. **sentience** (and/or perception)

PeterhörteinGeräusch.P.hear.PRS-3SGINDEF.Nnoise

'Peter hears a noise.'

c. **causation** (of an event or change of state; often with movement but also in a stative/generic sense)

DieSachebereite-tihmKopfschmerz-en.DETmattercause.PRS-3SG3SG.M.DATheadache-PL

'The matter caused him headaches.'

d. **movement** (relative to another participant, inanimate/accidental)

Wassertropf-tausdemTank.waterleak.PRS-3SGout.ofDET.SG.M.DATtank'Waterleaks from the tank.'

e. (independent existence of the event named by the verb)

Sarah	brauch-t	diese-s	Buch.
S.	need.PRS-3SG	DEM.SG.M.ACC	book
(0.1			

'Sarah needs this book.'

<sup>&</sup>lt;sup>8</sup> Without a claim for the list to be complete or the partition to be fixed like this; it is also debatable whether the entailments in parentheses really should be regarded proto-role definitions at all (cf. Dowty 1991:572).

### (5) Contributing properties for the Proto-Patient role

a. **undergoing a change of state** (coming into/out of existence; definite or indefinite)

Sarah back-toftBrot.S.bake.PRS-3SGoftenbread.

'Sarah often bakes bread.'

### b. incremental theme

Mariawisch-t-edenBoden.M.clean-PST-3SGDET.SG.M.ACCfloor'Mariacleaned the floor.'

### c. causal affection

DieBombe-nzerstörtendieStraße-n.DET.PLbomb-PLdestroy-PST-PLDET.PL.ACCstree-PL'The bombs destroyed the streets.'

#### d. stationary relative to another participant

Peterbesteig-tdasFlugzeug.P.board.PRS-3SGDET.N.ACCplane'Peter boards the plane.'

e. (does not exist independently of the event, or not at all; excludes non-specific NPs with no particular entity fixed)

cf. example (5a) above, bake bread

For all of these characteristics, (Dowty 1991: 572) states the hypothesis of semantic independence, even though most transitive verbs show more than one such entailment in English, for instance *build* (all of (4) for subject, all of (5) for object). However, the Spanish examples above suggest the claim that there are as well predicates showing each Proto-Agent property separately,<sup>9</sup> which Dowty demonstrates for English (cf. Dowty 1991: 572–573). Furthermore, (5c–5e) are converses of (4c–4e); thus, a verb usually shows both of the respective entailments for its arguments (cf. Dowty 1991: 574).

With regard to movement (4d), Dowty (1991: 574) observes that it is agentive only when not caused by another participant, or caused by something, or interrupted; these are cases where causation is of a higher proptity than movement. Furthermore, Dowty (1991: 574) identifies movement as being a Proto-Patient property only when direction (from/to a location) is involved.

However, the boundaries of the entailments mentioned are not be considered entirely clear, consider for instance causation concerning a change in one's own body (e.g. *to move* 

<sup>&</sup>lt;sup>9</sup> Proto-Agent property independence refers to subjects, Proto-Patient property independence to direct object NPs (cf. Dowty 1991: 572–573).

*one's leg*), or the notion of sentience in cases of computers and intelligent animals (e.g. *The program did that because it thinks you haven't saved the file*, or *The dog believed you were a stranger*) (cf. Dowty 1991: 574). Thus, Dowty (1991: 574) attributes sentience to different entities to various degrees.

Semantic distinctions like the above entailments are actually distinctions to be found "in the real world" (Dowty 1991: 575). This is why Dowty (1991: 575) does not associate them with discrete feature decomposition situated in syntax, morphology, and phonology. He believes that the semantic distinctions do not need to be assined clear boundaries, since they are "natural (physical) classifications of events ... significant to human life" (Dowty 1991: 575).<sup>10</sup>

# 4 Argument selection

## 4.1 The argument selection principle

To show how proto-roles tie in to argument selection, Dowty (1991:576) sets up the following principles, here quoted verbatim:

#### (6) Argument Selection Principle (ASP)

In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object.

#### (7) Corollary 1

If two arguments of a relation have (approximately) equal numbers of entailed Proto-Agent and Proto-Patient properties, then either or both may be lexicalized as the subject (and similarly for objects).

#### (8) Corollary 2

With a three-place predicate, the nonsubject argument having the greater number of entailed Proto-Patient properties will be lexicalized as the direct object and the nonsubject argument having fewer entailed Proto-Patient properties will be lexicalized as an oblique or prepositional object (and if two nonsubject arguments have approximately equal numbers of entailed Proto-Patient properties, either or both may be lexicalized as direct object).

#### (9) Nondiscreteness

Proto-roles, obviously, do not classify arguments exhaustively (some arguments have neither role) or uniquely (some arguments may share a role) or discretely (some arguments could qualify partially but equally for both proto-roles).

(Dowty 1991: 576)

<sup>&</sup>lt;sup>10</sup> For instance, in courts of law concerning the question if a certain act was volitional or not, or in categorization which ties in to human cognition and in turn affects language (cf. Dowty 1991: 575).

Dowty's selection principle is "a constraint on what kind of lexical predicates may exist in a natural language, out of many imaginable ones" (Dowty 1991: 576); a verb like *build* exists, whereas a simple non-passive verb *is built by* (the BUILT as subject, the BUILDER as object) does not (cf. Dowty 1991: 576).

Furthermore, proto-roles are "higher-order generalizations ABOUT lexical meanings ... not statements about individual lexical meanings" (Dowty 1991: 577, emphasis Dowty's). Individual word meaning boundaries can thus be drawn very precisely Dowty (cf. 1991: 577).

To apply these principles to verbs, it is implied for them to have the most stable arguments pattern in the lexicon – several Proto-Agent entailments for subjects, several Proto-Patient entailments for objects – for example *build (a house), write (a letter),* and so on (cf. Dowty 1991: 577). Combinations of certain Patient-entailments are found to represent traditional role types (or conceptions of them), as for instance the Agent role corresponds to volition + causation + sentience + movement, and the Experiencer role to sentience without volition/causation (cf. Dowty 1991: 577). As opposed to traditional role types, the properties proposed by Dowty show "broader and narrower semantic classes" (Dowty 1991: 577).

## 4.2 Role hierarchies

With regard to subjecthood, Dowty (1991: 578) demonstrates the (usual) hierarchical positions in (10) as determined by proto-roles and their ASP for traditional roles as well as additional rankings in (11):

(10)	Agent →	Instrument/Experiencer	$\rightarrow$ Patient	$\rightarrow$ Source/Goal <sup>11</sup>	
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(11)	causing event	$\rightarrow$	caused event
	moving argument	$\rightarrow$	(i) Source,
			(ii) Goal,
			(iii) argument without entailments (Agent or Patient)
	Experiencer	$\rightarrow$	argument without entailments (Agent or Patient)

One Proto-Agent entailment is sufficient for the qualification of an argument for subjecthood – if no Proto-Patient entailments are present – and the same is true for Proto-Patient entailments and objecthood (cf. Dowty 1991: 578).<sup>12</sup> Although (traditional) Goal and Source (often obliques) do not show any Patient-entailments, Theme arguments become direct objects – according to corollary 2 in (8) – since they show more Proto-Patient entailments than the former to (cf. Dowty 1991: 578). Hierarchies like those above, however, are not included in proto-role definitions and the ASP (cf. Dowty 1991: 578).

<sup>&</sup>lt;sup>11</sup> In (10) only, the arrow should be read 'outranks for subject' and 'outranks oblique for direct subject' (cf. Dowty 1991: 578).

<sup>&</sup>lt;sup>12</sup> The examples in (4) and (5) support this statement (cf. Dowty 1991: 578).

# 4.3 Challenges for the argument selection principle

## 4.3.1 Argument selection indeterminacy

One of the challenges are lexical doublets or lexicalizations of (almost) the same relation but with different argument configurations, such as *buy* and *sell*, *like* and *please* (cf. Dowty 1991: 579). Neither from a traditional point of view, nor from that of proto-role entailments do verbs like *buy* and *sell* distinguish their arguments (cf. Dowty 1991: 579).

Psychological predicates, however, are somewhat different (Dowty 1991: 579):

(12)	Experiencer subject	Stimulus subject <sup>13</sup>		
	x likes y	y pleases x		
	x fears y	y frightens x		

The Experiencer – unlike the Stimulus – entails sentience/perception (Proto-Agent entailment), and the Stimulus causes the Experiencer to react emotionally or judge cognitively (Proto-Patient entailment) (cf. Dowty 1991: 579). Since both parts show no other entailments relevant to argument selection, their arguments both have "a weak but apparently equal claim to subjecthood" (Dowty 1991: 579).

Dowty (1991: 580) refers to Croft (1986), who observes that Experiencer subject verbs are always stative, Stimulus subject verbs either stative or inchoative (i.e. description of the coming about of a perception and the emotional or cognitive reaction). The inchoative interpretation is found to entail a "Proto-Patient property in the Experiencer" which the stative one lacks: a (definite) change of state (cf. Dowty 1991: 580). Consequently, both arguments are equal in Proto-Agent but not in Proto-Patient properties, making the one with more Proto-Patient properties the direct object, according to the ASP (cf. Dowty 1991: 580).

The remaining question is if there are "any multiple lexicalizations ... not predicted to be 'ties' in argument ranking by these principles" (Dowty 1991:581). 'Symmetric' predicates and the *spray/load* alternations are, however, not be be counted as such (cf. Dowty 1991:581).

#### 4.3.2 Non-standard lexicalizations

Dowty (1991: 581) identifies a small group of verbs such as *suffer (from), undergo, inherit,* and *receive,* that seem to disagree with the proto-role selection hypothesis by having Goals (*inherit, receive*) or Patients (*suffer (from), undergo*) as subjects, but Agents/Causes as other arguments. Admitting that these verbs exceptions in fact, he concludes from their existence that the selection principle is a "strong tendency" rather than an "absolute rule" (Dowty 1991: 581). Additionally, sentience is sometimes suggested to be sufficient

<sup>&</sup>lt;sup>13</sup> Dowty here adopts terminology from Talmy (1985a): "Experiencer/Stimulus" (quoted in Dowty 1991: 569).

to qualify an arguments's lexicalization for subject, no matter how many Proto-Patient entailments exist (cf. Dowty 1991:581).

# 4.3.3 Argument selection in ergative languages

Here, Dowty (1991:581) focuses on ergative languages where the ergative-absolutive contrast is not only a matter of case marking/agreement, but "the basis of syntactic organization throughout the grammar."<sup>14</sup> NPs marked as absolutive can be said to "'behave alike' in transitive and intransitive clauses for most syntactic purposes, while ergative NPs of transitive clauses (agent-like in meaning) are treated differently" (Dowty 1991:582).

What Dowty (1991:582) basically states is that the ASp is not literally applicable to ergative languages, but the argument pattern shows similar proto-roles and principles if syntactic associations are reversed, that is, a transitive 'Patient' is treated as a grammatical subject and a transitive 'Agent' as an object (Dowty 1991:582).<sup>15</sup> Yet, proto-roles and grammatical relations are "distinct phenomena that languages must correlate consistently with one another" (Dowty 1991:582).

# 4.4 Multiple argument configurations and systematic semantic contrasts

# 4.4.1 Partially symmetric interactive predicates

Consider the following examples from Dowty (1991:583):

- (13) a. This one and that one rhyme / are similar / ...
  - b. This rhymes / is similar to / ... that.
  - c. John and Mary kissed.
  - d. John kissed Mary.

Dowty (1991: 583) here points to the fact that there is no entire synonymy in all these examples because of a difference in agency only becoming obvious in (13c) and (13d); the predicates entail volition on one part in (13d) or both parts in (13c). Other predicates involving volition of both parts are, among others, *marry* and *fight* (Dowty 1991: 584). However, volition does not play a role for (13a) and (13b) (Dowty 1991: 584).

Dowty (1991: 585) finds these cases to be "syntactically consistent with the selection principle"; volition is always (also) entailed for the subject argument (cf. Dowty 1991: 585). There are also cases where motion instead of volition is of importance, for example in *The truck collided with the lampost* vs. <sup>?</sup>*The truck and the lampost collided* (cf. Dowty 1991: 585–586). However, the discussion of these and other cases (Dowty 1991: 586–588) would go beyond the scope of this paper.

<sup>&</sup>lt;sup>14</sup> Similar to the subject-object contrast in other languages (Dowty 1991: 582).

<sup>&</sup>lt;sup>15</sup> Dowty (1991: 582) here refers to the "'inverse hypothesis' of ergative syntax."

## 4.4.2 Direct vs. oblique objects: *spray/load*

Just to focus briefly on direct vis-à-vis oblique objects, the *spray* vs. *load* cases are an example where Dowty's incremental theme plays a role again:<sup>16</sup>

- (14) a. *Mary loaded the hay unto the truck.* 
  - b. *Mary loaded the truck with (the) hay.*

(Dowty 1991: 576)

These examples are not complete paraphrases of one another as (14a) suggests that all the hay was affected, while (14b) suggests that the truck is completely filled (but not necessarily that all the hay is on it) (Dowty 1991: 587). Dowty (1991: 587–588) judges such cases "consistent with the proto-role hypothesis" and the ASP, since the Incremental Theme (Proto-Patient entailment) is always entailed for the DIRECT OBJECT (cf. Dowty 1991: 588). The same applies, for instance, to *spray the wall with paint* (cf. Dowty 1991: 591).

# 4.5 Some notes on psycholinguistics

Even though not of primary importance to his approach, Dowty (1991: 600–605) makes some interesting remarks with respect to psycholinguistics. Most important is probably the suggestion resulting from his proto-role hypothesis: proto-roles could serve as "semantic default" (Dowty 1991: 604) in lexical meaning acquisition, that is with cases of verb meanings where context alone does not lead to sufficient distinctions, as for instance with *like* vs. *please*, (in)transitive *kiss*, and so on (Dowty 1991: 604). Acquiring a verb meaning in such ways means

taking it for granted that the subject and object arguments have the full complement of possible proto-role entailments appropriate to each of these grammatical relations, whenever the learning environment in which this word is encountered does not contradict this explicitly. (Dowty 1991: 605)

As one reason for choosing the categories Proto-Agent and Proto-Patient, Dowty (1991: 602) notes, for instance, that for children, when learning their first language, it might be easier to indentify two "supercategories" before focusing on "finer" ones like volition, causation, and the like.

# 4.6 The unaccusative hypothesis

Dowty (1991: 605–613) also briefly turns to the UNACCUSATIVE HYPOTHESIS of Perlmutter (1978) and others:

<sup>&</sup>lt;sup>16</sup> Furthermore, Dowty (1991:592–598) includes a discussion of *fill/cover*, *hitting/breaking* as well as Representation-Source Themes and transformation verbs (such as *photograph a landscape*) not outlined here.

[S]ome surface intransitive clauses, the so called UNACCUSATIVE ones, derive from underlying clauses with grammatical objects but no subjects, while other, the UNER-GATIVES, derive from underlying clauses with grammatical subjects but no objects. (Dowty 1991: 605, emphasis Dowty's)

This basically means that intransitive predicates – unaccusative from a syntactic point of view – usually cause their arguments to be quite patient-like in meaning (e.g. *die, fall,* etc.), and conversely, syntactically unergatives show rather agentive meanings (e.g. *smile, walk,* etc.) (cf. Dowty 1991: 605). However, whether an intransitive argument in a certain language will be unaccusative or unergative cannot (easily) be predicted from its meaning, since there are no semantic criteria to cover all verbs correctly (Dowty 1991: 606).

# 5 Conclusion

What first appears to be a quite useful way of approaching the matter of thematic roles shows some weak spots nevertheless. Since I, as a student, am not an expert in the field, I can only offer a rather modest critical position to Dowty's approach, and have to refer predominantly to certain sources that have been able to approach the matter from a more professional point of view. Yet, there are weak spots that I can identify with regard to Dowty's (1991) work.

Why does Dowty (1991), for instance, concentrate that much on the English language, providing almost exclusively English examples (with few exceptions), if his theory is actually supposed to apply to any human language?

Furthermore, I am not entirely convinced of the way the Proto-Patient property "undergoing a change of state" is defined, since Dowty includes "coming into existence, going out of existence" (Dowty 1991: 574). I do not see how a non-existent entity can undergo a change of state or even be affected by any event.

Another point I am not entirely sure about is whether Dowty's (1991) approach of protoroles, though escaping some of the problems with thematic roles, is not another rather fuzzy concept, attempting to cover as many instances of a certain phenomenon as possible cross-linguistically (semantic relations, argument selection, multiple lexicalizations, and the like). That is, I actually see this attempt in a similar way to what Dowty himself, by quoting Jackendoff (1987), stated about confusing notions from semantics, syntax, and pragmatics to approach the concept of thematic roles: a "thinly disguised wild card to meet the exigencies of syntax" (Jackendoff 1987: 371, quoted in Dowty 1991: 548).

A critical point Levin & Rappaport Hovav (2005: 59) point to in Dowty's (1991) protorole approach is that it lacks embeddedness "into a larger theory of grammar" which means that syntax is rather neglected. Levin & Rappaport Hovav (2005: 59) note that "[i]t provides an analysis of basic verbs, but not those that are the output of morphosyntactic rules which change valence, voice, or grammatical relations." Furthermore, it lacks a "specific theory of lexical semantic representation" Levin & Rappaport Hovav (2005: 59) and, by claiming his approach is not incompatible with many others, Dowty (1991) only focuses on how certain semantic aspects tie into argument selection (cf. Levin & Rappaport Hovav 2005: 59)

Also with respect to two-argument intransitives, for example, Dowty's (1991) approach is judged insufficient (Levin & Rappaport Hovav 2005: 60). That is, if Dowty (1991) with his theory wants to cover constraints on lexicalization, it is necessary to also account for cases like *The magician relies on sleight of hand* vs. *\*Sleight of hand relies on/by/of/with the magician* (cf. Levin & Rappaport Hovav 2005: 60). Additionally, the account of object selection for verbs with dative alternation is not provided (Levin & Rappaport Hovav 2005: 60).

On the other hand, what makes proto-roles especially interesting is, for instance, that they are considered "most criterial of linguistic behaviour" (Ramchand 2008: 7). Dowty's (1991) general properties proposed must correlate with "general cognitive tendencies" (Ramchand 2008: 6), and they actually meet the "level of abstractness" necessary for "stating systematicities concerning the mapping between syntax and semantics" (Ramchand 2008: 7).

With his proto-role theory, Dowty (1991) offers a more variable account of thematic roles than has been presented with the traditional 'fixed' categories like Agent, Patient, Goal, Source, Theme, and so on. His proposal to make the concept more flexible by not taking for granted but rather challenging the already existing (traditional) assumptions, had gained much attraction among linguists (cf. Levin & Rappaport Hovav 2005: 53), and some of which have even expanded it over the years (cf. Levin & Rappaport Hovav 2005: 59). Dowty himself has extended his proto-role approach to nominals in subsequent work (Dowty & Barker 1993) – facts that show both advantages and disadvantages of Dowty's (1991) approach, and that are evidence for the ongoing debate on a concept which is not likely to be exhausted during the future decades.

#### Word Count 4500

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# Erklärung

Hiermit erkläre ich, dass ich diese Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen benutzt habe.

John Doe 4. Juli 2013

## **B** Reference paper: Master

The following is an anonymised term paper on the Master level which covers all of the various aspects of paper-penning discussed in the guide while following all of its suggestions to the letter.

Keep in mind that this is a real and mostly unedited paper, which therefore should **not be used as a reference for anything other than style and formatting**!

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Otto-Friedrich-Universität Bamberg Fakultät Geistes- und Kulturwissenschaften Lehrstuhl für Allgemeine Sprachwissenschaft HS: Some Seminar on Linguistics MA Mastermodul 1 Systemlinguistik (8 ECTS) Dozent: Prof. Dr. Hans-Ingo Radatz Wintersemester 2014/2015

# The Adjective Category in Japanese

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List of Abbreviations

# 1 Introduction

Modern Japanese recognizes several ostensibly diverse groups of words with adjectival meaning: (A) a large closed class of words whose inflectional patterns resemble those of verbs; and (B) an open class that, like nouns, does not itself inflect and instead is reliant on forms of the copula. Both may function as NP-internal modifiers (adnominally) and as predicates (conclusively), with members of class (B) occuring with forms of the enclitic copula in either position. The following examples illustrate their distribution; note that the word order in Japanese is consistently head-final:

- (1) inflecting type  $(A)^1$ 
  - a. *tura-i* siren=dat-ta painful-NPST ordeal=COP-PST 'It was a painful ordeal.'
  - b. siren=wa turakat-ta ordeal=TOP painful-PST
     'The ordeal was painful.'
- (2) copulaic type (B)
  - a. *kanpeki=na kekka=dat-ta* flawless=COP.ATT result=COP-PST 'It was a flawless result.'
  - b. kekka=wa kanpeki=dat-ta result=TOP flawless=COP-PST 'The result was flawless.'

While divergent in their morphology and use of the copula, semantic divisions cut across both groups (Backhouse 1984: 176–179). Grammatical descriptions of Modern Japanese have classified them in a variety of ways:

- (i) (A) and (B) are considered ancillary subclasses of verbs and nouns, respectively, owing to their functional similarity to these types of expressions; as such, there is no independent 'adjective' category in Japanese in the grammatical sense (e.g. Dixon 1982; Uehara 1998);
- (ii) (A) is deemed a category distinct from verbs, usually labelled 'adjective', while (B) is subsumed under nouns (e.g. Bloch 1946; Martin 1975; Shibatani 1990; Tsujimura 2007) or verbs (in many traditional approaches to Japanese grammar);
- (iii) both (A) and (B) are subclasses of a single but heterogeneous 'adjective' category (e.g. Suzuki 1972; Wenck 1974; Backhouse 2004; Frellesvig 2010; Kaiser et al. 2013).

<sup>&</sup>lt;sup>1</sup> Transliterations of Japanese in this paper use *kunreisiki rômazi*, the official cabinet-ordered romanisation scheme. Cited examples in other romanization systems have been converted to *kunreisiki*. Names of people and titles of published works use the more common Hepburn romanization instead.

In addition to these two, many descriptions recognize (C) a closed, 'catch-all' group of adjective-like words that modify nouns directly, without copulae or particles, but cannot predicate clauses. They include demonstrative determiners and various kinds of delimiters and indefinites. The discussion of this third group is unfortunately beyond the scope of this paper, and thus not considered further in the following.

Generally speaking, word classes should be defined on the basis of grammatical criteria as opposed to purely semantic properties (cf. Lyons 1968: 147; Dixon 1994: 31). The selection and weighting of these criteria, however, can be a point of contention (cf. Backhouse 2004: 71): do the syntactical and morphological similarities between (A) and verbs on the one hand, and (B) and nouns on the other, even light of their dissimilarities, justify the subcategorisation of (A) and (B) as verbs and nouns? Conversely, do the two groups share enough properties to be assigned to the same independent category?

This paper is chiefly intended as a review of the literature and a re-examination of the evidence brought forth in earlier descriptions of the Japanese word class system. As, however, the over-reliance on morphological criteria in the treatment of Japanese adjectives has been criticized (e.g. in Backhouse 1984, 2004), it also serves as an attempt at shifting the focus primarily to syntactical considerations, relying on morphology only in the disambiguation of contentious cases.

As a result of this shift, I arrive at the conclusion that Japanese does not in fact have an independent category of adjectives in the grammatical sense, much as Dixon (1982) and Uehara (1998) argue: as the words in (A) fill essentially the same slots as verbs in basic syntactic patterns, they are best analysed as a descriptive class of stative verbs, even if they do not possess all features of core verbs. Similar observations can be made for (B) and nouns, even if in a more limited and hence less conclusive way; supporting evidence nevertheless lends itself to the analysis of the words in (B) as a class of 'descriptive' nouns, albeit one lacking certain central properties of core nouns. As such, I share Uehara's (1998) and Dixon's (1982) view in maintaining that Japanese does not have 'adjectives' (and hence adjective phrases) per se, if for slightly different reasons.

In the following, after addressing the crucial aspect of terminology (Section 2.1) and examining a cross-section of previous descriptions (Section 2.2), I review the evidence from various areas of description (Section 2.3) – above all syntax – that motivate my final argument (Section 3).

# 2 The adjective category in Japanese

## 2.1 On terminology

Two groups of words are considered in this paper: (A) a closed class of words with properties shared with verbs, most notably the potential for inflection, and (B) an open

class of words that, like nouns, occurs with forms of the copula. Both may occur as predicates of matrix clauses and in patterns of adnominal modification.

While word classes should be established on grammatical grounds, their labels should accord with mainly semantic considerations (Lyons 1968: 147). As such, assigning to (A) and (B) the label of 'adjective' is only appropriate, as both groups express "properties or qualities" in the sense of 'descriptive adjectives' as outlined in Dixon (1994: 29). I thus adopt the working terminology of INFLECTING ADJECTIVE for the verb-like type (A), and COPULAIC ADJECTIVE for the noun-like type (B). As we shall see in what follows, the labels 'adjectival verb' and 'adjectival noun' would be just as apt for these words, however. As such, 'adjective' should not be understood as a term that is mutually exclusive to 'noun' or 'verb', but as a hyponym of both (cf. Backhouse 1984: 185).

These labels do not stray far from the current: copulaic adjectives are termed either 'nominal adjectives' or 'adjectival nouns', and inflecting adjectives simply 'adjectives' in Martin (1975), Shibatani (1990), and Tsujimura (2007), while 'inflected adjective' are juxtaposed with 'uninflected adjectives' in Dixon (1982) and Backhouse (2004), though of course their respective classifications vary. Backhouse (1984, 2004) and many Western textbooks also label the two descriptively as '-*i* adjectives' and '*na/no* adjectives'.

Traditional Japanese grammar, unsurprisingly, has its own set of names for these categories: here, inflecting adjectives are called *keiyôsi* 'descriptive words', while copulaic adjectives are known as *keiyôdôsi* 'descriptive verbs' for reasons that will become clear in the following. The third class of adjective-like words, group (C) above, are called *rentaisi* 'attribute words' for their inability to predicate clauses. Unlike the other two groups, *rentaisi* are only adjectives in the wider sense, containing items of categories (a) and (b) in Dixon (1994: 29), such as *kono* 'this (proximal)', *sono* 'that (medial)', *ano* 'that (distal)', *konna* 'this kind of', *aru* 'a particular', *arayuru* 'every', and *iwayuru* 'so-called'.

#### 2.2 Previous classifications

As subclasses of verbs and nouns. Uehara (1998: 86–87) distinguishes the top-level class of 'verbals' (verbs and inflecting adjectives) from that of 'nominals' (nouns and copulaic adjectives), chiefly by their potential for or lack of inflection. Despite their divergent subcategorisation, both types are given the label 'adjective'.

Dixon (1982: 38), in his 19-language survey of adjective systems, acknowledges inflecting and copulaic adjectives only as subclasses of nouns and verbs with special semantics. Inflecting adjectives ('inflected adjectives') in particular are termed 'defective verbs' for their lack of certain grammatical categories, although he notes that they correspond "in semantic content to the [a]djective class in other languages" (1982: 38). Inflecting adjectives hence differ from verbs proper only with respect to their morphology and are otherwise "syntactically indistinguishable" from them. The copulaic type ('uninflected adjective') is summarily understood to be a subclass of nouns with adjectival meaning (1982: 38 fn.39). As a distinct category, inflecting type only. In traditional approaches to Japanese grammar, word classes are divided into inflecting (*yôgen* '(lit.) function words') and uninflecting (*taigen* '(lit.) form words') denominations. Inflecting adjectives (*keiyôsi* 'descriptive words') are an independent class of *yôgen*, set apart from verbs chiefly on grounds of their divergent morphology. Copulaic adjectives (*keiyôdôsi* 'descriptive verbs') are likewise considered *yôgen*, but also a subclass of verbs, since their necessary co-occurrence with the enclitic copula is understood as an inflectional pattern (cf. Hashimoto 1948). In this view, the copulaic adjective *kankatu* 'generous', for instance, would be the stem of the *keiyôdôsi kankatu-da*. As the copula shares many inflectional categories with verbs proper, traditional approaches hence label copulaic adjectives as a subclass of verbs (*dôsi*), rather than of nouns, as in many modern descriptions.

In a more recent description, Martin (1975: 178–179), the copula is analysed as a distinct grammatical element, and the combination of copulaic adjectives ('adjectival nouns') with it is taken as the defining criterion for their categorisationas a subclass of nouns. This sets them apart from (inflecting) 'adjectives', an independent category. Shibatani (1990: 215–217) shares this view, but notes that copulaic adjectives and nouns do differ in certain respects, most notably the inability of the former to function as clausal arguments, and that conversely, copulaic and inflecting adjectives alike are modified by degree adverbs (which nouns are not) and share a noun-deriving suffix *-sa* '-ness', thereby blurring the lines.

Tsujimura (2007: 119–120) likewise identifies inflecting adjectives ('adjectives') as a distinct class, but also notes the similarities of their inflectional paradigms to that of verbs. Not unlike traditional grammar, Tsujimura (2007: 125–126) analyses the enclitic copula as inflection, rendering both nouns and copulaic adjectives ('adjectival nouns') inflecting categories. As they thusly share the same set of "conjugational endings" (with the exception of the non-past indicative), copulaic adjectives are subsumed under the umbrella of nouns.

As a distinct category encompassing both types. In Suzuki (1972), both types of adjectives are treated as unitary word class, subdivided into 'Type I' (i.e. inflected) and 'Type II' (i.e. copulaic). Suzuki takes both the morphology and semantics of these categories into account, arguing that adjectives are "in a sense an intermediate category between the two polar categories [of nouns and verbs]" (Bedell 1972: 19).

Wenck (1974: 34–36) uses terms "primary adjectives" and "secondary adjectives" to refer to the inflecting and copulaic adjectives respectively, but understands the two to be separate syntactic sub-classes within the larger word class 'adjective', with the copulaic type situated between the inflecting type and nouns. The adjective category is established as an independent category morphologically, specifically on the basis of the differences of the links between the inflecting type stem and its ending on the one hand, and the

copulaic type and the copula enclitics on the other.

Backhouse (2004), building on earlier work in Backhouse (1984), sees inflected adjectives (also called '-*i* adjectives') and uninflected adjectives ('*na* adjectives' or '*no* adjectives', depending on the form of the copula) as subclasses of a larger 'adjective' class that is morphologically heterogeneous, but coherent in its syntax and semantically virtually indivisible. As noted above, Backhouse (2004) in particular criticizes the overreliance on morphological criteria in the definition of word classes in other descriptions.

Iwasaki (2013) distinguishes 'verbal adjectives' and 'nominal adjectives' from verbs and nouns mostly on the basis of morphological identifiability: while the former has its own set of inflectional endings that are unlike those of verbs, the latter requires the attributive form *na* of the copula in adnominal modification, unlike nouns, which take *no*. Iwasaki further notes the existence of cross-classification between copulaic adjectives and nouns (see Section 2.3.3).

Kaiser et al. (2013: 151–183) likewise posit an independent adjective category, composed of 'adjectives proper' (i.e. inflecting adjectives) in addition to '*na*-adjectives' and '*no*-adjectives' (i.e. copulaic adjectives taking the *na* and *no* attributive forms of the copula, respectively, see Section 2.3.2), drawing on many of the same morphological considerations as Iwasaki. The class of '*no*-adjectives' in particular, they argue, has adjectival meaning, but "grammatically behave[s] like nouns" (2013: 157).

#### 2.3 Reviewing the evidence

In the following, I will first discuss inflecting and copulaic adjectives in terms of their lexical strata and class openness (Section 2.3.1) before providing an overview of the morphosyntax and inflectional paradigms of verbs, inflecting adjectives, and the copula (Section 2.3.2). I will then briefly address the issue of cross-classification among the categories (Section 2.3.3) that has at times muddled earlier descriptions, and review the evidence on class membership that can be gleaned from the potential for derivation of each of the classes (Section 2.3.4). Finally, I will discuss the syntactic evidence that presents itself (Section 2.3.5), and, for sake of completeness, also briefly touch on lexical semantics (Section 2.3.6).

#### 2.3.1 Lexical strata and class openness

The Japanese lexicon is composed of three clearly delineated strata: (i) native, (ii) Sino-Japanese (i.e. borrowings from pre-Modern Chinese), and Western (i.e. borrowings first from Portuguese, now mainly English, and other European languages). The languages of China in particular have exterted profound influence on Japanese since at least the sixth century, with multiple subsequent waves of borrowing until the fourteenth century (Shibatani 1990: 119–125). Reports published by the Japanese National Language Research Institute indicate that words of Sino-Japanese origin account for roughly 50–60 % of all

tokens and 45 % of all types in a sample of newspapers published in 1966 (Kokuritsu Kokugo Kenkyūjo 1971), and for 18 % of tokens in NHK television broadcasts in 1989 (1995).

The composition of individual word classes varies substantially with regard to stratum, with inflected words (i.e. verbs including inflecting adjectives) being "virtually 100% native" (Backhouse 1984: 179) due to their high resistance to the incorporation of borrowed material. Lexically simple verbs and inflecting adjectives are hence essentially closed classes:<sup>2</sup> borrowed verb bases are preferably lexicalised as 'verbal nouns' (Shibatani 1990: 217) and combined with the verb *suru* 'do' in light verb constructions, as in *kansya suru* 'thank (lit. gratitude do)' and *riyô suru* 'utilize (lit. utilization do)'.<sup>3</sup> The numer of lexically simple inflecting adjectives is nevertheless quite high: Nishio (1972: 11–12) counts 600–700 inflecting adjective types in a survey of monolingual dictionaries.

Uninflected words (i.e. core nouns, copulaic adjectives, and verbal nouns), conversely, are open classes composed of all three substrata, accomodating the vast majority of Sino-Japanese and Western borrowings. Examples of borrowed nouns and copulaic adjectives are hence hardly difficult to find: consider nouns *akutoresu* 'actress', *pasokon* 'personal computer', and copulaic adjectives *nau* 'trendy' (< English *now*), *abauto* 'approximate, sloppy' (< English *about*).

#### 2.3.2 Morphosyntax

Of interest in terms of morphosyntax are the inflectional categories and forms of verbs and inflecting adjectives on the one hand, and of the copula on the other.

**Verbs and inflecting adjectives.** Table 1 provides an overview of the inflectional categories of verbs and inflecting adjectives. The two share a number of categories, most notably tense and polarity. Core verbs, however, possess many additional categories that adjectives lack, including a regular morphological potential, passive, and causative, as well as the imperative and volitional. The polite register is also not available to adjectives; instead, inflecting adjectives predicating matrix clauses may combine with the polite copula, *desu*:

<sup>&</sup>lt;sup>2</sup> Note that this applies solely to lexically simple items: there are productive derivational patterns that yield complex verbs (e.g. *-sugiru* 'be too much') and inflecting adjectives (e.g. *-rasi-i* '-like' and *-poi* '-ish', see Section 2.3.4).

<sup>&</sup>lt;sup>3</sup> Exceptions to this rule exist, however, especially with regard to recent Western borrowings: while Shibatani (1990: 176) lists only the verb *saboru* 'be truant, skip school' (< French *sabotage*), verbalized borrowings from English such as *toraburu* 'make trouble', *basuru* 'take the bus', *guguru* 'look up online', and even *makuru* 'eat at a fast food restaurant' have since entered usage, perhaps suggesting a limited renaissance in the productivity of verbs.

	VERB	INFL. ADJ.
	'drink'	'hot'
NON-PAST	пот-и	atu-i
PAST <sup>4</sup>	non-da	atu-katta
NEGATIVE	nom-anai	atu-kunai
PASSIVE	nom-areru	—
CAUSATIVE	nom-aseru	—
VOLITIONAL	nom-ô	—
NEG. VOLITIONAL	nom-umai	—
DESIDERATIVE	nom-itai	—
EVIDENTIAL	nom-uyô, nomisô,	atu-iyô, atu-sô
POLITE	nom-imasu	—
IMPERATIVE	пот-е	—
PROHIBITIVE	nom-una	
CONDITIONAL	non-dara	atu-kattara
PROVISIONAL	nom-eba	atu-kereba
CONTINUATIVE <sup>5</sup>	nom-i	atu-ku
CONJUNCTIVE <sup>6</sup>	non-de	atu-kute
REPRESENTATIVE	non-dari	atu-kattari
SIMULTANEOUS	nom-inagara	—

TABLE 1. Inflectional categories of verbs and -*i* adjectives (adapted from Iwasaki 2013: 79table 1 and 87 table 13).

Note: *nomu* 'drink' is a consonantal verb (*godan* 'pentagrade'); the forms of vocalic verbs (*itidan* 'monograde') for the listed categories are slightly different.

(3) *anata=ni ae-te uresi-i=desu* PRO.2SG=DAT meet-CONJ happy-NPST=COP.POL '(I) am glad to see you.'

In this use, *desu* arguably serves solely as a marker of politeness, rather than in its regular function as a copular verb.

The formal similarity between verbs and auxiliaries in many of the forms can be attributed to the adjective stem-forming suffixes *-ka*, *-ki*, *-ku*, and *-ke* (Iwasaki 2013: 86), which developed from an Old Japanese auxiliary *-kar/-ker* with verbal inflection patterns (Dixon 1982: 38).

Notably, verbal forms ending in *-i*, such as negative *nai* and desiderative *-tai*, display properties of inflecting adjectives and inflect as such (Kishimoto & Uehara 2016: 61). Kaiser

<sup>&</sup>lt;sup>4</sup> The past (and conjunctive) endings *-ta* (and *-te*) trigger sandhi with some consonantal verbs (such as *nomu*), a process called *onbin* in traditional grammar (Iwasaki 2013: 809).

<sup>&</sup>lt;sup>5</sup> The continuative form is called "adverbial" in Shibatani (1990: 222), and "infinitive" in Martin (1975: 392) and Iwasaki (2013: 79). It is the most productive stem-generating form, with a broad range of functions.

<sup>&</sup>lt;sup>6</sup> The conjunctive form is also commonly labelled "gerund" (cf. Martin 1975: 475).

	COPULA
NON-PAST	da
PAST	datta
CONJECTURE	darô
NEGATIVE	de wa nai / zya nai
PAST NEGATIVE	de wa nakatta / zya nakatta
CONJUNCTIVE	de
ATTRIBUTIVE	no, na
ADVERBIAL <sup>7</sup>	ni

TABLE 2. Forms of the copula, adapted from Iwasaki (2013: 88 table 15).

et al. (2013: 154) note that in addition to the negative inflectional ending *-nai*, there is also a 'negative adjective' *na-i* 'there isn't', which serves as the opposite of the stative verbs *iru* and *aru* 'there is', used with animate and inanimate referents, respectively. The animacy distinction created by these verbs is hence levelled in statements of negative existence (cf. Backhouse 2009).

Neither inflecting nor copulaic adjectives in Japanese possess a morphological comparative or superlative, with both instead relying on lexical expressions (e.g. *sai-kyô* 'strongest' with the elative prefix *sai-*) and periphrastic constructions. Comparatives are formed periphrastically using the particle *yori* 'from, more than', as in *sisi=ga neko=yori oki-i* 'Lions are bigger than cats', and superlatives employ various degree adverbs such as *itiban* 'most' (lit. 'number one') or *mottomo* 'extremely, most', as in *honyûrui=no naka=de*, *kuzira=ga itiban ooki-i* 'among mammals, whales are the largest'.

The copula. The Japanese copula is a enclitic morpheme with its own verb-like inflectional paradigm (Iwasaki 2013: 78), and for this reason often grouped with auxiliary verbs (Shibatani 1990: 221), although traditional descriptions (e.g. Hashimoto 1948) and some modern approaches (e.g. Tsujimura 2007) treat it as an inflectional property of its hosts, rather than as a distinct element. The copula is considered chiefly to be a carrier of tense marking, but also possesses a number of additional features (Narahara 2002: 10–12).

The inflectional paradigm of the plain copula is provided in Table 2. There exists also a polite counterpart, *desu*, which inflects like a consonantal verb for the same categories, with the notable exceptions of the attributive and adverbial.

Iwasaki (2013: 88) notes that "the copula is unique among inflectional categories in that it retains the (non-past) conclusive-attributive distinction that has been lost for both verbs and [inflecting] adjectives." The distinction was still present in core verbs in Early

<sup>&</sup>lt;sup>7</sup> The analysis of adverbial *ni* as a form of the copula, while shared by numerous authors (Backhouse 1984: 172; Frellesvig 2010: 235; Iwasaki 2013: 88), is not universal; one university-level textbook, Katsuki-Pestemer (2004: 169), for instance, analyses it as a postposition.

Middle Japanese/Classical Japanese, where the attributive form (*rentaikei*) is distinguished from the conclusive form (*syûsikei*) (Vovin 2003: 167):

- (4) EARLY MIDDLE JAPANESE
   (conclusive)
   *hito=o koh-u* person=ACC love-CONCL.NPST
   'love a person'
- (5) (attributive)

koh-uru hito love-ATT.NPST person 'a person who loves'

As seen in (4–5), *syûsikei* is used for predicates of matrix clauses, and *rentaikei* for what corresponds to the predicates of relative clauses in Modern Japanese. The fact that the copula still patterns this way in combination with copulaic adjectives suggests the analysis of adjectives in adnominal use as embedded clausal structures (see Section 2.3.5).

Copulaic adjectives themselves are not an entirely homogeneous group: for some copulaic adjectives, the non-past attributive form of the copula is *na*, for others *no*, and for some either *na* or *no* (see also Table 2):

- (6) makotoni sunao=na hito=da
   really frank=COP.ATT person=COP.NPST
   '(She) is a really frank person.'
- (7) kono hon=wa hutû=no dokusya-muke=da
   this book=TOP ordinary=COP.ATT reader-aimed.at=COP.NPST
   'This book is intended for general readers.'
- (8) igai=na seikô=ni kyôki si-ta
   =no
   unexpected=COP.ATT success=at joy do-PST '(They) rejoiced at the unexpected success.'

As core nouns likewise use *no* in adnominal attribution, traditional Japanese grammar and lexicography treats copulaic adjectives combining with *no* as nouns. Other examples of the kind in (8) include *daizi* 'important', *tokubetu* 'special', *betu* 'different', as well as copulaic adjectives formed with the derivational suffix *-teki* (see Section 2.3.4). This "continuous use" (Iwasaki 2013: 62) is not infrequent: Uehara (1998: 186) notes that out of 264 copulaic adjectives in the *Iwanami Japanese Dictionary* (Nishio et al. 1992) which take *na*, 113 (43 %) may alternatively take *no*. Subtle differences in the composition of their lexical strata (with foreign borrowings taking *na* almost exclusively) and in their semantics (with particular nuances of meaning attached to each form, a distinction already suggested in Martin 1975) lead Backhouse to argue that items using *na* and/or *no* are situated in a lexical continuum

(2004: 71 table 10). As the distinction vanishes with other forms of the copula (such as the past, *dat-ta*) and there are otherwise no functional differences, they are treated as members of a single class for the purposes of this paper. Historically, *na* is a contraction of now archaic *naru*, which in Modern Japanese only occurs with a small handful of fossilised attributives (e.g. in *sei=naru ken* 'sacred sword', *haha=naru sizen* 'Mother(ly) Nature'), which for this reason might as well be deemed set lexical expressions.

# 2.3.3 Cross-classification

Some degree of cross-classification occurs between lexical (sub-)categories. Limited parallelism exists between (i) inflecting and copulaic adjectives, and more commonly between (ii) copulaic adjectives and nouns as well as (iii) adverbs, and (iv) inflecting adjectives and nouns.

**Inflecting and copulaic adjectives.** A limited number of inflecting and copulaic adjectives are cross-classified, for instance (Backhouse 2004: 63):

(9)	inflecting	copulaic adjective			
	ooki-i	ooki	'big'		
	tiisa-i	tiisa	'small'		
	okasi-i	okasi	'strange'		
(10)	atataka-i	atataka	'warm'		
	yawaraka-i	yawaraka	'soft'		
	sikaku-i	sikaku	'square'		
(11)	makkuro-i	makkuro	'pitch black'		
	massiro-i	massiro	'pure white'		

Of these examples, some couple with *na* adnominally, others with either *na* or *no* (see Section 2.3.2).

As copulaic adjectives, *ooki*, *tiisa*, and *okasi* are restricted in that they cannot predicate clauses; they only modify adnominally with *na* (Martin 1975: 747). For this reason, they are sometimes grouped together with other non-predicating adjectivals as *rentaisi* 'attribute words'.

The the remaining examples are all morphologically complex: the words in (10) derive via the no longer productive elements *-ka* and *-raka*, which originally produced copulaic adjectives that were later absorbed into the inflected type (Backhouse 2004: 63; Uehara 1998: 236). The examples in (11) are both formed with the intensifying prefix *ma*-. Notably, no inflecting counterpart to *massao* 'deep blue' and *makka* 'bright red' exist, despite basic colour terms all being inflecting adjectives (*ao-i* 'blue', *aka-i* 'red').

As evidenced by (9–11), 'multiple membership' (in terms of Backhouse 2004) among the two groups of adjectives is likely a sporadic phenomenon applying to a highly restric-

ted set of items, many of which display unpredictable properties. Most adjectives possess no counterpart in the other type.

**Copulaic adjectives and other categories.** Uehara (1998: 215) reports that out of 264 copulaic adjectives (i.e. combining with *na* or with either *na* or *no*, but excluding those only occuring with *no*), a total of 151 (57 %) also occur with case particles, and as such are cross-classified with nouns (see Section 2.3.5). Common examples are listed in (12) (cf. Shibatani 1990: 216; Backhouse 1984: 173–175):

(12)		noun	copulaic adjective
	honki	'seriousness'	'earnest'
	genki	'vigour'	'vigorous'
	siawase	'happiness'	'happy'
	ziyû	'freedom'	'free'
	anzen	'safety'	'safe'
	sizen	'nature'	'natural'
	son	'loss'	'unprofitable'
	husigi	'mystery'	ʻodd'

The case of  $ziy\hat{u}$  is discussed in detail in Tsujimura (2007: 126 fn.8):  $ziy\hat{u}$  is a copulaic adjective, modifying adnominally via use of the copula *na*:

(13) *ziyuu=na zikan* free=COP.ATT time 'free time'

Yet it is also a noun, functioning as an argument in (14), being modified adnominally in (15), and itself modifying via genitive *no* as a relational attribute in (16) (see also Section 2.3.5):

- (14) ziyuu=ga hosi-i
  freedom=NOM wanted-NPST
  '(I) want freedom.'
- (15) *genron=no ziyuu* speech=GEN freedom 'freedom of speech'
- (16) ziyuu=no megami
   freedom=GEN goddess
   'the Statue of Liberty'

However, Backhouse (2004: 65) holds that "many common uninflected adjectives have no noun counterparts," and that, "where nouns are found, they are often highly restricted in distribution," that is, occur in larger, more or less lexicalised constructions. Crossclassification with nouns furthermore is not restricted to the noun-like copulaic type; inflecting adjectives, to a limited degree, also show parallelism with nouns, masked by the presence of inflectional endings (Backhouse 1984: 174):

(17)	noun		inflecting	inflecting adjective		
	ao	'blue colour'	ao-i	'blue'		
	sibu	'bitter juice'	sibu-i	'bitter'		
	maru	'circle'	maru-i	'round'		

Finally, a small number of copulaic adjectives are cross-classified with lexically simple adverbs:

(18)		adverb	copulaic adjective
	taihen	'very, extremely'	'serious'
	iroiro	'variously'	'various'
	iikagen	'considerably'	'careless'

The adverbs in (18) are all lexically simple in the sense that they modify verbs and adjectives directly, unlike copulaic adjectives, which require *ni*, the adverbial form of the copula. Notably, the semantics of these cross-classified pairs do not always match up precisely, as evidenced by *taihen* and *iikagen*.

In summary, the examples in (12), (17), and (18) do not follow from predictable, productive patterns, and are hence best interpreted as cases of sporadic zero derivation.

#### 2.3.4 Derivation

The regular derivational potential of word classes has been brought up as an argument in establishing lexical categories (cf. Shibatani 1990: 218; Suzuki 1972 and Bedell 1972: 18–19). In this view, the existence of shared derivational endings and target classes are taken as indicators for class membership.

Inflecting adjectives and copulaic adjectives can be derived from each other and from nouns with via a number productive suffixes, as listed in this section. Do note that core nouns and verbs have a plethora of derivational patterns that are not described here, as do both types of adjectives. The following should thus not be taken as exhaustive.

**Deriviation into adverbs.** Adverbs derive from inflecting adjectives, but not verbs, by attaching the suffix *-ku* '-ly' to the stem:

(19)	<i>okasi-i</i> 'strange'	$\rightarrow$	okasi-ku 'strangely'
	<i>itosi-i</i> 'dear'	$\rightarrow$	<i>itosi-ku</i> 'dearly'

Adverbs derived this way are formally equivalent to the continuative form of the inflecting adjective, see Table 1. Note that copulaic adjectives instead modify adverbially via use of the the appropriate form of the copula, *ni*, see Table 2.

**Derivation into copulaic adjectives.** Copulaic adjectives are derived from nouns and inflecting adjective stems with the suffix *-yaka* 'seeming':

(20)	<i>tuya</i> 'gloss'	$\rightarrow$	<i>tuya-yaka</i> 'glossy'
(21)	<i>yuru-i</i> 'gentle'	$\rightarrow$	<i>yuru-yaka</i> '(seeming) gentle'

Nouns may further take the Sino-Japanese suffix -teki '-like':

(22) kagaku 'science'  $\rightarrow$  kagaku-teki 'scientific' zisyu 'autonomy'  $\rightarrow$  zisyu-teki 'voluntary'

Words derived with *-teki* are of particular note in that they appear to span a continuum between copulaic adjectives and nouns: while they primarily fulfil the same roles as copulaic adjectives, alternating between the *ni* and *no* attributive forms of the copula (see Section 2.1) in adnominal use, they may also modify adnominally directly without the copula (Nihon Kokugo Daijiten 2001; cf. also Martin 1975: 762–763), and, like nouns, function as arguments of clauses and modify via the genitive particle *no*. Some items derived with *-teki*, such as *sya-teki* 'target practice (lit. archery-like)', are fully-fledged nouns with no discernible adjectival properties. The status of *-teki* and its derivates thus remains somewhat inconclusive.

**Derivation into inflecting adjectives.** The suffix *-rasii '-*like' attaches to nouns and copulaic adjectives alike, yielding inflecting adjectives:

(23)	<i>gakusei</i> 'student'	$\rightarrow$	<i>gakusei-rasii</i> 'student-like'
	hana 'flower'	$\rightarrow$	hana-rasii 'flower-like'
(24)	<i>sizuka</i> 'quiet'	$\rightarrow$	sizuka-rasii 'quiet-like'
	<i>nodoka</i> 'tranquil'	$\rightarrow$	<i>nodoka-rasii</i> 'tranquil-like'

Inflecting adjectives also derive from nouns via suffixation of the sometimes pejorative *-poi* '-ish', which begins with a *sokuon*, a geminate consonant:

(25)	<i>kodomo</i> 'child'	$\rightarrow$	kodomop-poi 'childish'
	<i>gaki '</i> brat'	$\rightarrow$	<i>gakip-poi '</i> bratish'

**Derivation into nouns.** The nominalisers *-sa* and *-mi* attach to both the stem of inflecting adjectives and to copulaic adjectives:

(26)	<i>haya-i</i> 'early'	$\rightarrow$	haya-sa 'earliness'
(27)	tasika 'certain'	$\rightarrow$	tasika-sa 'certainty'
(28)	<i>itai-i</i> 'painful' <i>yowa-i</i> 'weak'	$\rightarrow$ $\rightarrow$	<i>ita-mi</i> 'pain' <i>yowa-mi</i> 'weakness'
(29)	<i>iya</i> 'unpleasant'	$\rightarrow$	<i>iya-mi</i> 'unpleasantness'

While *-sa* is fully regular and productive, *-mi* appears to be limited in its applicability and to display some semantic irregularities (Sugioka & Itō 2016: 377).

**Derivation into verbs.** A number of suffixes serve as verbalisers; of the four listed in Iwasaki (2013: 95), *-garu* 'show signs, think' in particular attaches to the stem of inflecting adjectives. It is only used with adjectives denoting emotion or sensation (2013: 87):

(30)	<i>arigata-i</i> 'grateful'	$\rightarrow$	arigata-garu 'show gratitude'
	<i>mezurasi-i</i> 'curious'	$\rightarrow$	<i>mezurasi-garu</i> 'think a curiosity'
	<i>sabisi-i</i> 'lonely'	$\rightarrow$	<i>sabisi-garu</i> 'miss someone'

The verbalising suffix *sugiru* 'exceed, go beyond' indicates excess of a quality or action when attached to inflecting and copulaic adjectives as well as other verbs, but not nouns:

(31)	<i>kowa-i</i> 'afraid'	$\rightarrow$	kowa-sugiru 'be too afraid'
(32)	hiyowa 'delicate'	$\rightarrow$	hiyowa-sugiru 'be too delicate'
(33)	naku 'cry'	$\rightarrow$	<i>naki-sugiru</i> 'cry too much'

In summary, nouns, verbs, and both types of adjectives "equally may serve as the base to obtain other categories" (Bedell 1972: 18–19), with at least one highly productive derivational suffix yielding complex items of each of the categories. Words derived from nouns via the suffix *-teki* '-like' in particular stand out, straddling the boundary between copulaic adjectives and fully-functional nouns.

# 2.3.5 Syntax

**Predication.** The structure of an elementary intransitive matrix clause in Japanese is given in (34):

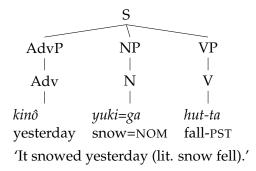
(34)



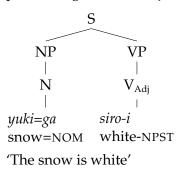
S

In this syntagma, the VP slot can be filled equally by a verb or an inflecting adjective:

(35) (predicating verb)

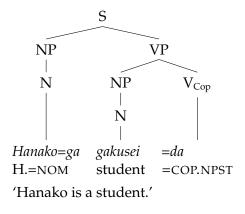


(36) (predicating inflected adjective)

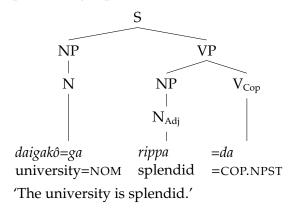


Copulaic adjectives and nouns predicate matrix clauses in a similarly parallel manner, but as NP complements of the copula *da*:

(37) (predicating noun)

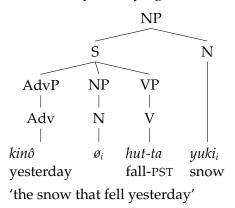


(38) (predicating copulaic adjective)



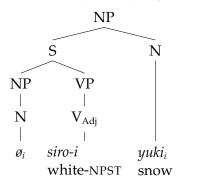
**As adnominal modifiers.** Verbs modifying adnominally are generally analysed as descriptive relative clauses (Shibatani 1990: 257), which pattern essentially the same as the basic clause in (35), but with forced gapping:

(39) (adnominally modifying verb)



Inflecting adjectives again fill the same syntactic slot as verbs:

(40) (adnominally modifying inflecting adjective)

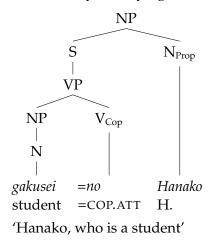


'white snow (lit. snow that is white)'

The analysis of of adnominal inflecting adjectives as relative clauses obviates the need to posit the existence of adjective phrases, in essence rendering this group of adjectives a class of descriptive verbs that express qualities in an adjectival fashion.

Nouns function as adnominal attributes in combination with the adnominal form of the copula, and as such pattern as embedded clauses (see Section 2.3.2):

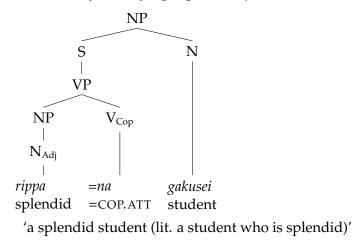
(41) (adnominally modifying noun)



Note that the attributive structure in (41) is distinct from modification by a possessor with genitive *no*, as in *gakusei=no hon* 'the student's book': adnominal possessors cannot be situated in past tense (\**gakusei=datta hon* 'a book that was a student') as they are embedded NPs, not clauses, while conversely in (41), the possessive interpretation ('a student's Hanako') is not readily available.

Copulaic adjectives likewise pattern as nouns, but with the non-past copula instead taking the forms *na* or either *na* or *no*:

(42) (adnominally modifying copulaic adjective)



Note that in the past tense, the distinction in the forms of the copula vanishes entirely: *mukasi=wa rippa=dat-ta Hanako* 'Hanako, who was splendid back in the day'; *mukasi=wa gakusei=dat-ta Hanako* 'Hanako, who was a student back in the day'.

In short, with nouns and copulaic adjectives, there likewise exists no immediate necessity to assume the existence of adjective phrases, as both nouns and copulaic adjectives modify adnominally only as part of embedded copulaic clauses. Morphology aside, nouns and copulaic adjectives, like verbs and inflecting adjectives, thus occur in parallel syntactic structures of attribution.

**Transitivity.** Clauses predicated by inflecting or copulaic adjectives are prototypically intransitive (i.e. requiring one argument NP, typically marked with *ga* for the nominative) (Pustet 2006: 62). Among the small number of exceptions that are transitive, the inflecting adjective *hosi-i* 'wanted, desired' and the copulaic antonyms *suki* 'liked, loved' and *kirai* 'disliked, hated' are the most frequent. These take both a *ga*-marked argument and a direct object marked with *o*:

(43) syutuensya=no hitori=ga kono sisutemu=o actor=GEN one.person=NOM this system=ACC
hosii=to hanasi-te-i-ta wanted=QUOT say-CONJ-AUX-PST
'One of the actors said (he) wanted this system.'

As noted in Backhouse (2004: 53), double-nominative marking (i.e. both arguments taking nominative ga) is alternatively possible with these items. Japanese does not restrict double-nominatives as it does double-accusative marking (cf. Koizumi 2008: 145).

**As adverbial modifiers.** Inflecting and copulaic adjectives, but not verbs and nouns, occur directly with adverbial function. While the latter are marked with *ni*, the adverbial form of the copula, the former are converted to adverbs via the suffix *-ku* '-ly':

- (44) *sono hon=o haya-ku yon-da* that book=ACC quick-LY read-PST '(She) read that book quickly.'
- (45) *kouen=wa zyuntyô=ni susun-da* lecture=TOP favourable=COP.ADV proceed-PST 'The lecture went off well.'

**In patterns of modification.** Verbs and both groups of adjectives are modified in adverbial patterns:

- (46) *totuzen mezame-ta* suddenly awaken-PST '(I) suddenly woke up.'
- (47) *sugoku kowa-katta* terribly afraid-PST '(I) was terribly afraid.'
- (48) *mettya saitei=dat-ta* extremely horrible=COP-PST '(It) was extremely horrible.'

In particular, degree adverbs may only modify inflecting and copulaic adjectives and adverbs, but not verbs.

Nouns, conversely, are modified in adnominal patterns. As such, nouns, but not copulaic adjectives, may directly combine with other adjectives, as well as with demonstrative determiners, as in *kono tosyokan* 'this library', and other *rentaisi*, such as in *aru honya* 'a particular bookstore'. As copular complements. In addition to occuring with the copular verb *da*, copulaic adjectives and nouns alike can be complements of verbs such as *naru* 'become' in combination with the adverbial copula *ni* (Backhouse 2004: 59):

- (49) *gengogakusya=ni nar-u* linguist=COP.ADV become-NPST 'become a linguist'
- (50) *nodoka=ni nar-u* tranquil=COP.ADV become-NPST 'become tranquil'

A comparable pattern using the continuative form is available to inflecting adjectives and negative verbs (which pattern like inflecting adjectives, see Section 2.3.2), but not to positive verbs, which require different constructions (Backhouse 2004: 54–55):

- (51) *uresi-ku nar-u* happy=CONT become-NPST 'become happy'
- (52) *kurusim-ana-ku naru* suffer-NEG-CONT become-NPST '(lit.) become not suffering'

**Combination with TAM makers.** Both verbs and inflected adjectives inflect for tense (past/non-past, see Section 2.3.2), but only verbs combine with auxiliary verbs such as *-iru* and *-simau* to express distinctions of aspect, as in *tabete-iru* 'be eating' and *tabete-simau* 'eat completely' (Backhouse 1984: 171). In fact, inflecting adjectives do not appear to join with most auxiliary verbs (*hozyodôsi*), thus also precluding combinations with benefactive *-kureru* (e.g. *tabete-kureru* 'eat for someone'), *-miru* 'try' (e.g. *tabete-miru* 'try to eat'), and others.

**Argument function.** Copulaic adjectives, unlike nouns, cannot be heads of NPs functioning as arguments in clauses. Copulaic adjectives are thus never followed by the case markers *ga* (nominative), *o* (accusative), and *ni* (dative, among other functions) (Backhouse 2004: 60).

**Coordination.** Nouns are coordinated with the conjunction *to*; copulaic adjectives are instead chained via the conjunctive form of the copula, *de*:

(53) *hon to zassi* book and magazine 'books and magazines'

PROPERTY	INFL. ADJ.	VERBS	COP. ADJ.	NOUNS
predication	yes	yes	with COP	with COP
transitivity	intrans.	either	intrans.	intrans.
govern ACC	(no)	yes	(no)	no
modify noun	yes	yes	with COP	with COP, GEN
modify adverbially	with -ku	no	with COP	no
modification	adverbially	adverbially	adverbially	adnominally
comp. of <i>naru</i>	yes	NEG only	yes	yes
TAM marking	(tense)	yes		_
argument function		—	no	yes
coordination			with COP	with to

TABLE 3. Summary of syntactical properties.

### (54) *sunao=de* odayaka obedient=COP.CONJ gentle 'obedient and gentle'

A summary of this section is provided in Table 3. Although verbs and inflecting adjectives diverge on multiple accounts – with negative verbs being notably more adjective-like in certain respects – both emerge in the same phrase structure in both predicative and adnominal use (i.e. as relative clauses). Nouns and copulaic adjectives likewise are not perfect matches, differing most significantly in their (in)ability to function as arguments of clauses, yet also have in common a number central syntactic patterns.

#### 2.3.6 Lexical semantics

Backhouse (1984: 177) argues that "syntactic divisions may be expected to correlate, at least in focal cases, with semantic distinctions." It is thus worthwhile to assess the distribution of the two classes of words in question across the lexical spectrum, even if semantic considerations cannot serve as sufficient criteria for word class assignment.

**Sense relations.** Synonyms, antonyms, and scale-related word pairs are distributed across inflecting and copulaic groups, with no clear split between the two (Backhouse 1984: 177). Mixed pairs of the kind in (55–57) are hence not uncommon:

(55) (synonyms)

uma-i	zyôzu	'skillful'
mazu-i	heta	'inept, poor quality'
kasiko-i	azi	'smart'

(56) (antonyms)

ii	'good'	dame	'no good'
kitana-i	'ugly, dirty'	kirei	'pretty, tidy'
yamasi-i	'noisy'	sizuka	'quiet'

(57)	(scales)
------	----------

kura-i	'dark'	makkura	'very dark'	
aka-i	'red'	makka	'bright red'	
ao-i	'blue'	massao	'deep blue'	

**Denotational categories.** Inflecting and copulaic adjectives are distributed unevenly across the seven 'semantic types' in Dixon's (1982: 16) typology of adjective meanings (Backhouse 1984: 178–179; 2004: 68–70):

- (i) DIMENSION: basic items are exclusively inflecting adjectives such as *taka-i* 'tall', *hiku-i* 'short', and *hiro-i* 'wide'; the pair *ooki-i* 'big' and *tiisa-i* 'small' possess cross-classified copulaic counterparts, *ooki* and *tiisa*, which notably may not predicate clauses (see Section 2.3.3);
- (ii) PHYSICAL PROPERTY: all basic members are inflecting adjectives, for example *atu-i* 'hot', *suzusi-i* 'cool', and *kata-i* 'rigid', with some members, such as *atataka-i* 'warm' and *yawaraka-i* 'soft' also being cross-classified with copulaic adjectives;
- (iii) COLOUR: Japanese has four basic colour terms, all of which are inflecting types, this being *kuro-i* 'black', *siro-i* 'white', *aka-i* 'red', and *ao-i blue* (Martin 1975: 823–1824); as seen above in (57), their derivates with the intensifier *ma-* are copulaic adjectives;
- (iv) HUMAN PROPENSITY: according to Dixon (1982: 38), this category contains predominantly copulaic adjectives such as *sinsetu* 'kind' and *siawase* 'happy'; Backhouse (1984: 178) notes a number of common inflecting types as well, listing, among others, *kasiko-i* 'smart', *zuru-i* 'sly' and *kibisi-i* 'strict';
- (v) AGE: *waka-i* 'young', *huru-i* 'old (of things)' are both inflecting adjectives; *tositotta* 'old (of people)' and *oita* 'aged' are verbs;
- (vi) VALUE: both types are represented in this category, often forming mixed antonym pairs of the kind in (56); compare *ii* 'good', *waru-i* 'bad', *subarasi-i* 'splendid', and *hido-i* 'terrible' to *dame* 'no good', *suteki* 'lovely', *myô* 'excellent', and *kanpeki* 'perfect';
- (vii) SPEED: the basic pair *haya-i* 'fast, early', *oso-i* 'slow, late' is inflecting.

Lexically simple inflecting adjectives are hence represented in all denotational categories, with some of the smaller categories (colour, age, speed) populated exclusively by them. Copulaic adjectives are present in all other categories, even if sometimes only in a marginal role (e.g. as cross-classifications of inflecting adjectives in the dimension and physical property categories). Nevertheless, the adjectival semantic space is very much distributed across both types, in that there exists no clear division between them in terms of semantic classification (Backhouse 1984: 179), neither on the grounds of Dixon's (1982) semantic types or of sense relations.

#### 3 Discussion

Semantically, both adjectival verbs and adjectival nouns are indubitably adjectives (cf. Pustet 2006: 60), with many semantic distinction cutting across them, as seen above. Grammatically, however, the picture less clear. As the selection and weighting of individual criteria is decisive in establishing word classes – as it is in deliberating contentious cases – divergent choices in key criteria have lead descriptions to at times opposite conclusions. Backhouse (1984, 2004) in particular criticizes the over-reliance on morphological criteria in many descriptions of the Japanese adjective system, likening the morphological differences between the two types of adjectives to the two morphological classes of adjective in English, the inflecting (e.g. *prettiest*) and the periphrastically graded (e.g. *most beautiful*). Instead, Backhouse holds syntactic criteria paramount, but concludes that the parallelism between inflecting adjectives and verbs on the one hand, and copulaic adjectives on the other, does not make for enough of a convincing argument for their subcategorization as verbs and nouns. Instead, he proposes merging the two into a single holistic category.

Based on evidence presented in previous sections, I argue for opposite: like Uehara (1998), I hold that inflecting adjectives are in fact a class of descriptive verbs, and that copulaic adjectives can be understood as class of nouns with atypical properties.

**Inflecting adjectives.** Morphosyntactically, inflecting adjectives share a number of a number of inflectional categories with verbs, most notably a limited degree of TAM marking (especially tense), which leads (Dixon 1982: 38) to consider them 'deficient verbs'. The ties between the inflecting type and verbs go beyond morphological resemblances, however, as inflecting adjectives fill the same slots as core verbs in basic clause patterns, both as predicates of matrix clauses, and when modifying adnominally as what is in principle intransitive relative clauses. This constitutes, in my regard, sufficient evidence to identify inflecting adjectives (or perhaps more accurately, ADJECTIVAL VERBS) as a predominantly intransitive type of descriptive verb expressing ongoing events (i.e. states). As such, they join other stative verbs (e.g. existential *iru/aru*, inchoative *naru* 'become') and auxiliary verbs (e.g. perfective *-simau*, benefactive *-kureru*) as a special subclass of the larger verbal category.

**Copulaic adjectives.** As evidenced in the preceding sections, copulaic adjectives appear to take up something of an intermediary position between nouns and "prototypical" adjectives (cf. Wenck 1974). While many of their key properties indicate kinship with nouns – shared clause patterns, co-occurrence with the copula, common cross-classification, and the intra-class na/no continuum – there are a number of divergent features, most notably their inability to serve as heads of NPs with subject or object function, and their modification in adverbial rather than adnominal structures.

Japanese nouns in their own right are a notably heterogeneous category: they are composed of different lexical strata and encompass members with atypical characteristics, such as verbal nouns, which as complements in light verb constructions not only express verbal meaning, but do not receive case marking. The disparate nature of the noun class has already been noted in Martin (1975: 30), and is among the reasons why Uehara (1998) prefers the term 'nominal' to refer to all uninflected lexical items, including core nouns.

In light of both the supporting and detracting evidence, rather than posit an independent grammatical 'adjective' class for the copulaic type only, I consider the subcategorization of copulaic adjectives under the umbrella of nouns to be a servicable interpretation, even if it cannot account for all inconclusive points. Copulaic adjectives (or ADJECTIVAL NOUNS, as in Martin 1975 and Shibatani 1990) are hence an open subclass of nouns whose defining characteristics are morphological differences in the form of the attributive copula, and the inability to serve as arguments of predicates.

Of course, there exist many properties of the Japanese word classes that could not be brought up within the miniature scope of this paper. I am without question remiss in mentioning numerous arguments and tests that could potentially skew interpretations one way or another, but were deemed to peripheral for inclusion.

#### 4 Conclusion

In this paper, I have discussed the status of the adjective category in Japanese by reviewing some of the more salient arguments offered in the literature. Two large candidate groups of words with adjectival meaning have been considered, which earlier work has subsumed either under the larger categories of verbs and nouns (Uehara 1998; Dixon 1982), or deemed partly (Martin 1975; Shibatani 1990; Tsujimura 2007) or fully independent (Suzuki 1972; Wenck 1974; Backhouse 1984, 2004; Iwasaki 2013; Kaiser et al. 2013).

In re-eximining the evidence brought forward in these descriptions, I have argued for the categorization of these two groups of words as descriptive subclasses of verbs and nouns, chiefly in an attempt to shift the focus to syntactical properties first, morphological second. The first group of words, labelled inflecting adjective or adjectival verb, is a closed class of predominantly intransitive stative verbs exhibiting considerable syntactical parallelism with core verbs. The second is an open, thriving group of descriptive nouns, labelled copulaic adjectives or adjectival nouns, whose key identifying features are the required co-occurrence with forms of the copula, and the inability to head argument NPs. The classification of this second group in particular serves to highlight the highly heterogeneous composition of the noun category in Japanese.

In short, the argument presented in this paper agrees with earlier work in Uehara (1998) and Dixon (1982) in maintaining that, while the Japanese language certainly has adjectives in terms of semantics as all languages are likely to have (cf. Pustet 2006: 60), it can be

described as lacking an independent adjective category in the strictly grammatical sense.

WORD COUNT 6000

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# List of Abbreviations

ACC	accusative	LOC	locative
ADV	adverbial	NEG	negative
AGN	agentive	NMLZ	nominalizer
ATT	attributive	NOM	nominative
CAUS	causative	NPST	non-past
CONCL	conclusive	POL	polite
CONJ	conjunctive	POT	potential
CONT	continuative	PRO	pronoun
COP	copula	PST	past
DAT	dative	Q	question marker
DES	desiderative	QUOT	quotative
GEN	genitive	ТОР	topic

## Erklärung

Hiermit erkläre ich, dass ich diese Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen benutzt habe.

Lucy Bloggs 28. März 2015