Approaching Māori Language through Meaning: The Predominance of Indo-European Models of Relationships within Propositions

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Abstract

In every language, there are relationships between predicators (such as, for example, 'go'/'haere') and arguments (such as, for example, 'James'/'Hēmi'). One such relationship that has been proposed is that of agency. Thus, in 'James goes'/ 'E haere ana a Hēmi'), 'James'/'Hēmi' can be said to be the agent of the action 'go'/'haere'. Much of the international literature on relationships of this type is based on research on English and it has been claimed that the relationships that have been identified are universals. However, there may be differences among languages, differences that are attributable to the fact that different languages encode different ways of perceiving divisions in perceptual space. My aim here is to demonstrate, with reference to a number of different models of predicator/ argument relations, that most of them are based on assumptions that derive from the structure of Indo-European languages, English in particular. In *Part 2* of this paper (to appear in a subsequent issue of this Journal), the implications of this discussion will be examined with reference to an analysis of Māori in terms of relationships within propositions.

Introduction: laying the foundations

An early article by Fillmore (1968) is regarded as one of the major benchmarks in the presentation of a universal set of case relations in language (Cook, 1989; Grimes, 1975; Nilsen, 1972). In this article, Fillmore develops an alternative model to the transformational models proposed earlier (e.g. Chomsky (1957) and Chomsky (1965)), questioning the "deep structure validity of the traditional divisions between subject and predicate, a division which is assumed by some to underlie the basic form of all sentences in all languages" (1968, p. 17). Central to Fillmore's argument (p. 5) is the following claim:

> There are many semantically relevant syntactic relationships involving nouns and the structures that contain them. . . . These relationships . . . are in large part covert but are nevertheless empirically discoverable. . . . [They] form a specific finite set, and . . . observations made about them will turn out to have considerable cross-linguistic validity.

Fillmore refers to these relationships as 'case relations'. He proposes a 'conceptual framework' in which these relations are interpreted, making a clear distinction between deep and surface structure. A proposition is defined as "a tenseless set of relationships involving verbs and nouns (and embedded sentences, if there are any)" (p. 23), the basic structure of a sentence being treated as a verb and one or more noun phrases associated with the verb in a particular case relationship. The propositional constituent of a sentence is separated from modalities on the sentence as a whole which include "tense, mood, and aspect" (p. 23). Each proposition has a verb and one

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or more nominal components which have relationships of various types (case relations) with the verb. Fillmore initially lists six case roles (*Agentive, Instrumental, Dative, Factitive, Locative, and Objective*), adding a further three (*Benefactive, Time, Comitative*) in the course of the discussion. These are outlined in *Table 1* below alongside examples drawn from English. In each case, the noun that enters into the relationship in question is in bold.

Table 1: **Case roles (intra-propositional relations) according to Fillmore (1968)**

Case Role	Description	Specific Features	Examples
Agentive	Instigator of the action identified by the verb.	• chosen as the subject in a simple sentence. • 'typically animate' (perceived). • marked with the preposition *by* in English.	**John** ran. **John** opened the door. The house was built by **John.**
Instrumental	Inanimate force or object used in the action or state identified by the verb.	• marked with the preposition *by* when there is no agentive. • otherwise it takes the preposition *with* when there is an agentive present. • includes natural forces.	He was knocked over by a **truck.** He broke it with a **hammer.** The **wind** knocked over the tree. The **wind** opened the door.
Dative	Animate being affected by the state or action identified by the verb.	• may appear as subject, direct object or indirect object of non-action verbs. • may also occur as the indirect object of state or action verbs. • typically marked by the preposition '*to*'.	I kicked **John**. I gave the letter to **John**. **He** heard the scream.
Factitive	Object or being resulting from an action or state identified by the verb, or understood as a part of the meaning of the verb.	• distinguishes the effected object from the affected object. • can never occur as the subject.	Nick built the **house**.

Table 1 (continued): **Case roles (intra-propositional relations) according to Fillmore (1968)**

Case role	Description	Specific Features	Examples
Locative	Identifies the location or spatial orientation of the state or action identified by the verb.	• may occur as a subject or object but more often as a preposition.	**Wellington** is windy.
Objective	Limited to things which are affected by the action or state identified by the verb	• not to be confused with direct object or with accusative case in surface structure. • may occur as subject or object of a non-action verb or direct object of an action verb.	John enjoyed the **movie**. He opened the **door**.
Benefactive	Not defined by Fillmore.	• marked by the preposition '*for*' (for the sake of).	He washed the car for **Tina.**
Time	Not defined by Fillmore.	• no surface marker. • prepositions of time.	He left on **Monday**.
Comitative	Not clearly defined by Fillmore: involves co-ordination	• signalled by the preposition *with*. • parallel to the conjunctor '*and'*.	He is leaving with **Peter.**

It is immediately apparent that this framework is biased towards Indo-European languages. In fact, Fillmore himself observes that this proposal is language-specific to the extent that it prioritises the role of verbs and nouns rather than the conceptual content that may be expressed in some languages nominally and verbally. This means that the way in which the term 'proposition' is defined needs to be revised. Here, a proposition is redefined as a predicator (often encoded as a verb) together with one or more arguments (often encoded as nouns or pronouns) that are related to that predicator. The relationships between arguments and the predicators are case relations. Thus, case relations are intra-propositional relations, that is, they are relationships that exist *within* the proposition rather than *between* propositions.

Thus, a proposition is redefined here as a combination of a predicator and one or more arguments that are related to that predicator. With this definition in place, it becomes clear that a proposition need not be encoded as a clause. In examples (1) and (2) below, from Māori and English respectively, a single clause encodes a single proposition. However, in example (3) below, there is propositional embedding: a

proposition is embedded as a nominalization inside a clause. Thus, in example (3), the proposition 'James interrupted' (where 'James' is in an agentive role in relation to 'interrupt') is embedded as a noun group. In this example, there are two encoded propositions: 'James interrupted' and 'he became angry'. In fact, these two propositions are linked in an *inter*-propositional (not *intra*-propositional) relationship of reason-result. Thus, the first proposition acts as a reason in relation to the result in the second proposition:

(1) She washed the plates

(2) I horoi ia i ngā pereti.

(3) James' interruption caused his anger.

Thus, a single clause can encode more than one proposition. From this perspective, it may be that there is no need for the case relationship that Fillmore (1968) refers to as 'Benefactive'. In example (4) below, there appear to be two propositions encoded within a single clause:

(4) John washed the car for Mary.

Here, the first proposition ('John washed the car') is encoded directly. However, the second proposition needs to be recovered and can be expressed as something like 'Mary benefited'.

As in the case of example (3), there appears in example (4) to be an *inter*-propositional relationship (a relationship *between* the two propositions). This time, the inter-propositional relationship appears to be that of means-purpose. Thus, the purpose (benefiting Mary) is achieved by means of washing the car. What this suggests is that two different types of relationship (*inter*-propositional and *intra*-propositional) are being confused. *Intra*-propositional relationships (case relations or case roles) are relationships *within* propositions; *inter*-propositional relationships are relationships *between* propositions.

We have already seen that an entire proposition can be encoded as a noun group. We have also already seen that predicators can be encoded as verbs and arguments can be encoded as nouns and pronouns. In fact, however, predicators need not, even in English, be encoded as nouns or pronouns. In example (5) below, what is predicated of James is not 'isness' but 'inness':

(5) James is in the cupboard.

Thus, in example (5) above, the encoded predicator is 'is in' and the arguments are 'James' and 'cupboard'. The verb ('is') is, in effect, simply a place-filler that can carry tense. The fact that this is the case (the fact that 'inness' is the predicator) becomes clearer when we consider an example from Māori. This is because Māori does not have any equivalent of the verb 'to be' in English. In example (6) below, the two arguments 'Hēmi' and 'kāpata' relate to the predicator which is 'kei roto':

(6) Kei roto a Hēmi i te kāpata.

In examples (5) and (6), 'the cupboard' and 'te kāpata" are *Locative* in relation to the encoded predicator 'in'/'kei roto'. In example (7), 'cupboard' is *Locative* in relation to the encoded predicator 'is under':

(7) James is under the cupboard.

In terms of this analysis, examples (8) and (9) would have a predicator which is encoded as a verb plus a preposition ('lives in' and 'hides under') with 'compost' being the argument that has the case role *Locative*:

(8) The hedgehog lives in the compost.

(9) The hedgehog hides under the compost.

In the case of a clause involving two prepositional phrases which operate together, one of the arguments is made up of a group containing an embedded proposition:

(10) Jane is in the cupboard under the stairs.

Thus, in example (10) above, what is predicated of the first argument ('Jane') is 'inness' and the encoded predicator is 'is in'. The second argument (occupying the *Locative* role) is 'the cupboard under the stairs'. Thus, the second argument contains an embedded proposition ('The cupboard is under the stairs').

Some clauses can contain two prepositional phrases that are not semantically linked as in example (11) below:

(11) The box is under the stairs, beside the coat.

In this example, there are two propositions: 'The box is under the stairs' and 'The box is beside the old coat'. The encoded predicator of the first proposition is 'is under'; the encoded predicator of the second proposition is 'is beside'. The Locative case role is occupied by 'stairs' in the first proposition and by 'coat' in the second.

This approach would help us also to analyse clauses containing predicative adjectives. In the sentence below, for example, what is predicated of 'Jane' is 'prettiness'. Thus, 'is pretty' is the encoding of the predicator:

(12) Jane is pretty.

However, where the adjective is in attributive position, as in the example below, an entire proposition ('The girl is pretty') is embedded within the initial noun group:

(13) The pretty girl laughed.

Thus, an entire proposition (embedded) operates as the argument of the predicator 'laughed' in example (13).

Thus, predicators may be encoded as more than one part of speech. In the following example, what is predicated of Mary is 'running quickly'. Thus, 'runs quickly' is the encoded predicator:

(14) Mary ran quickly.

In example (15), the encoded predicator is 'ran quickly towards' and the arguments are 'Mary' and 'Tom':

(15) Mary ran quickly towards Tom.

Approaching the proposition in terms of arguments and predicators in the way suggested above removes a number of problems that are associated with Fillmore's proposal (Fillmore, 1968), problems that would make it difficult to apply his model to languages which are structured in ways that are very different from English. It would, furthermore, provide a coherent way of dealing with propositional embedding and with those adjectives, adverbs and prepositions in English which created difficulties in relation to the original model.

It has already been suggested that there may be no need for a *Benefactive* role. Equally, what Fillmore (1968) refers to as the 'Comitative' role appears to be unnecessary. In terms of propositional content, there is no difference between 'John and Mary' and 'John . . . with Mary': the difference is a matter of surface emphasis. Thus, in both 'John and Mary are leaving' and 'John is leaving with Mary', the argument is 'John and Mary'. Redefining the term 'proposition' and recognizing the fact that there are relationships *between* propositions as well as *within* them allows for the reduction of case roles within Fillmore's initial model to seven: *Agentive, Instrumental, Dative, Factitive, Objective, Locative* and *Time*. Replacing references to verbs in the descriptions by references to predicators and acknowledging that predicators need not be encoded as verbs would have the effect of making the model more likely to apply to a wide range of languages. Finally, consideration needs to be given to the use of the words 'animate' and 'inanimate' in the definitions of two of the remaining case roles (*Instrumental* and *Dative*). Because Māori culture (in common with a range of other cultures) recognises that all things are imbued with *wairua* (life spirit), it may be inappropriate to differentiate between 'animate' and 'inanimate' in defining case roles. This is a matter that can be finally resolved only when specific examples from Māori are examined in the context of a set of possible case frames.

Beyond the initial framework: a critical examination of international literature on case roles

The case roles proposed by Fillmore in 1968 underwent radical revision during a seminar devoted to syntax held in the summer of 1970 at Ohio State University. The revisions are reflected in an article published in 1971. In this article, Fillmore notes that the intention was “not [to provide] a proposal to eliminate deep structures altogether, but . . . to find a level of syntactic structure which was deeper than that offered by the then standard theory” (Fillmore, 1971, p. 245). In the revised theory, the propositional core consists of "a predicator (a verb, adjective or noun) in construction with one or more entities, each of these related to the predicator in one of the semantic functions known as (deep structure) cases” (pp. 246-47). These cases or

relations identify the roles that the entities serve in the predication, "including that of the instigator of an action, that of the experiencer of a psychological event, that of an object which undergoes a change or movement, that of the location of an event, and so on" (p. 247).

Once again, the predicator is tied to syntactic realisations although these no longer consist of the verb only. The model also remains tied to clause structure: although he acknowledges clause embedding, Fillmore argues that only one case role of any particular type may occur in a single clause. In fact, it would be better to acknowledge that **(a)** a single clause may encode more than one proposition, and **(b)** only one case role of any particular type may occur in a single encoded proposition.

In this model, a distinction is made between *Actor* and *Experiencer* and between both of these and *Location.* The cases are hierarchically organised in relation to subject selection in the case of 'unmarked' sentences, the hierarchical order being: *Agent*, *Experiencer*, *Instrument*, *Object*, *Source*, *Goal*, *Location*, *Time*, and *Benefactive*. Once again, at least one aspect of the model (the hierarchical ordering in the case of 'unmarked sentences') is clearly language-specific and there is no recognition of the existence of *inter*-propositional relationships.

The *Dative* case relation is replaced by three relations: *Experiencer*, *Objective* and *Goal*. The *Locative* case relation is also replaced by three case relations: *Location, Source* and *Goal* (subsuming *Factitive*). Note that there are, in fact, five case roles here (*Goal* appears in each set). Although the *Comitative* relation has been removed, *Benefactive* remains. However, there is considerable uncertainty about inclusion of a *Benefactive* relation: it is noted that "sentences with *Benefactives* in them really come from more complicated constructions in which . . . somebody offers some deed to somebody else" which in turn constitutes "an abstract verb of giving" (p. 261). The five case roles (case relations/ intra-propositional relations) that replace *Dative* and *Locative* are outlined in *Table 2* below along with the redefined *Time* role:

Table 2: **Case roles replacing Dative and Locative in Fillmore (1971)**

Case Role	Description	Specific Features	Examples
Experiencer	Animate being affected by the action.	• experiencer of a psychological event or mental state. • excludes non-psychological change of state verbs (i.e. *grow*). ▪ does not include transfer of property verbs (i.e. *give*).	**I** am in love with her. **John** is cold. **She** heard the song. **He** is fond of food.

Table 2 (continued): **Case roles replacing Dative and Locative in Fillmore (1971)**

Case Role	Description	Specific Features	Examples
Objective	Semantically the most neutral relation.	• entity which moves or undergoes change. • occurs in the direct object position in the context psychological predicators relating to experience.	John opened the **door**. John built a **house**. John broke the **plate**. The wind opened the **door**.
Location	Place where an object or event is located.	• used in conjunction with *Source* and *Goal*.	Nick **lives in Wales.**
Source	The origin or starting point of a motion.	• refers to the place from which the motion begins. • earlier location with motion verbs. • earlier states with change of state verbs. • earlier time with time verbs.	He went from the **hill** to the river) He grew from a **weakling** to a giant. The meeting lasted from **Saturday night** to Sunday morning.
Goal	End point of a motion.	• place towards which a motion tends. • final location with motion verbs. • final state with change of state verbs. • final time with time verbs.	He went from the hill to the **river**. He grew from a weakling to a **giant**. The meeting lasted from Saturday night to **Sunday morning**.
Time	The time at which an object or event is located.	• there may be multiple time expressions.	**Summer** is warm. The meeting took place on **Saturday night**.

The distinction between *Agent* and *Experiencer* makes immediate sense in relation to the semantic classification of predicator types. Distinguishing these two case roles from the role referred to as 'Objective' captures a perceptual distinction between the direct involvement with a predicator (*Agent* and *Experiencer*) and indirect involvement (*Objective*). The *Source* and *Goal* roles capture a distinction that appears to be fundamental in the case of movement.

Thus, removing *Dative* and *Locative* (which are replaced) and Comitative and Benefactive, we have the following case roles: *Agentive, Instrumental, Experiencer, Object, Location, Source, Goal, Objective* and *Time*.

Chafe (1970) presents a model based on two major conceptual spaces. He refers to these as **(a)** the area of the verb, embracing states (conditions and qualities) and events, and **(b)** the area of the noun, embracing 'things' ((both physical objects and reified abstractions) (p. 96). In fact, the two areas of conceptual space are clearly occupied by arguments and predicators and there is no need to make direct reference to nouns and verbs (which may be involved in encoding but are not directly relevant to propositions as abstract meanings). An important aspect of Chafe's proposal is the observation that some clauses do not encode propositions. These 'ambient' clauses are said not to have arguments (see examples (16) - (18) below):

(16) It's raining.

(17) It's hot.

(18) It's late.

In fact, however, it could be argued that all of these examples do include an argument. When example (16) is reworded as 'Rain is falling', it becomes clear that the verb 'to rain' encodes both an argument (rain) and a predicator (fall). In the case of example (17), heat can be said to be predicated of the environment (for which 'it' stands). Similarly, in example (18) lateness can be said to be predicated of time.

Chafe distinguishes between intrinsic and derived verbs, intrinsic verbs being transformed into derived verbs by means of derivational processes (pp. 119-143). The system of derivation includes categories such as inchoative, resultative, causative, deactivative, and deprocessive.

Inchoative is a derivational process that converts an intrinsic state verb into a derived process verb. Chafe notes that in the surface structure of English, the presence of the inchoative "is sometimes reflected by the suffix *en*, sometimes in a different way (as *heat* from *hot*), sometimes not at all (as with *open*), and occasionally, as with *tired* and *tire*, there may be a perverse postsemantic development" (p. 123). Thus, for example, in (19) (20) and (21), we have derived process verbs:

(19) The street widened.

(20) The fire heated the room.

(21) John tires.

Resultative converts an intrinsic process verb into a derived state verb. This derivational process is the opposite of inchoative: here a state is derived from a process (see examples (22) and (23) below):

(22) The dish is broken.

(23) The dish broke.

Causative converts an intrinsic or derived process verb into a derived action-process verb. The causative derivational process is similar to the inchoative. Here, however, a verb root which is a process (either intrinsically or as a result of a prior derivation) is converted into one that is derivatively both a process and an action"(p. 129). Chafe notes that "such a derived verb will then require the accompaniment not only of a patient but also of an agent" (p. 129). Thus, in example (24), we have an action-process verb:

(24) John broke the dish.

Deactivative converts an intrinsic action-process verb into a derived process verb. This process is the opposite of the causative and applies only "under limited circumstances" (p. 131). Thus, in example (25) below, there is an intrinsic action-process verb; in example (26), there is a derived process verb, the agent having been removed during the derivational process:

(25) John is cutting paper.

(26) The paper cuts easily.

An examination of examples (19) - (26) above demonstrates the way in which the operation of derivational processes can contribute towards surface structure clauses in which arguments and predicators may be expressed in a range of different ways. Thus, in example (27) below, the predicator is encoded as a verb ('widened'), whereas in example (28), it is encoded as a verb plus an adjective. Similarly, in example (29), the predicator is encoded as a verb ('tires'), whereas in example (30), it is encoded as a verb plus an adjective.

(27) The street widened.

(28) The street became wider.

(29) John tires.

(30) John becomes tired.

In example (31), on the other hand, there are two propositions linked by the causative *inter*-propositional relation of reason-result. The first proposition is an existential one ('There was a fire'/ 'A fire existed'); the second is a process one ('The room heated').

(31) The fire heated the room.

Chafe lists seven case relations (which he refers to as noun-verb relations). These are *Patient*, *Agent*, *Experiencer*, *Beneficiary*, *Instrument*, *Complement*, and *Location* (1970, p.163). An examination of two of these reveals that they are so closely tied to English as to be non-generalizable (see *Table 3* below).

Table 3: **Two noun-verb relations according to Chafe (1970)**

Noun-Verb relation	Description	Specific Features	Examples
Patient	Required by a state or process verb, provided that the verb is also not classified as ambient.	• with state verbs, the *Patient* specifies what actually is in that state. • for process verbs, the *Patient* specifies a change in its sate or condition.	**The plate** is broken. **The dish** broke. Jane broke **the dish.** John dried **the wood.** Tom knew **the answer.** John saw **the bird.**
Agent	Required by action verbs (provided that the verb is not ambient).	• specifies something or someone that performs the action. • occurs in both action and action-process sentences. • chosen as the subject when the verb is used in the active voice. • the thing that has the ability or power to do something (it has a force of its own, it is self-motivated).	**James** sang. **James** ran. **Mary** opened the door. The **wind** opened the door. **Jane** built the fence. **Simon** gave the gift to James. **John** broke the plate.

In summary, the overall approach adopted by Chafe has something important to offer in that it contributes towards an understanding of why it is that predicators can be encoded in a range of different ways. However, the fact that the analysis is tied so closely to English is unhelpful in the search for a model that will be of value in the analysis of Māori.

Anderson (1971) argues in favour of a more abstract view of case than is found in Fillmore (1968), defining case relations as "grammatical relations contracted by nouns which express the nature of their 'participation' in the 'process' or 'state' represented in the sentence (or noun phrase)" (p. 10). He notes that these relations can be "represented superficially in various fashions, including inflexionally and by pre- and postpositions" (pp. 10-11). He believes that languages differ "with respect to how they divide up minimal semantic fields [i.e. these intra-propositional relations] . . .[and] in the particular transformational operations performed on these underlying representations" (p. 15). Although this last observation is one that could prove significant in relation to the analysis of Māori, there continues to be no recognition of the fact that a single clause in which there is propositional embedding may be marked by *inter*-propositional relations. Furthermore, a number the important distinctions recognised by Fillmore (1971) are absent.

A number of other models of case relationships have been forwarded. Thus, for example, Platt (1971) situates his model within the framework of tagmemic analysis. However, the actual relations listed are little different from those listed by Fillmore (1971). One framework that is different in some respects is that of Grimes (1975) who distinguishes between orientation roles (orientation to motion or position), process roles (dynamic aspect of change of state and static aspect of stable states) and agentive roles (causative) (see *Table 4* below):

Table 4: **Orientation, process, and agentive roles according to Grimes (1975)**

Orientation roles	Description	Specific Features	Examples
Object	The thing that is moving in the dynamic case, or the thing that is in a particular position in the static case.	• the thing whose orientation to its physical environment is given by the predicate.	**Water** flows downhill. **A statue** sits on the pedestal. **The letter** fell from her hand.
Source	Identifies the location of the object at the beginning of the motion, the initial boundary of the event.	• applies to motions but not positions. • motion implies that when event ended the object is elsewhere.	The letter fell from **her hand.** This idea came to me from **James.**

Table 4 (continued): **Orientation, process, and agentive roles according to Grimes (1975)**

Orientation roles	Description	Specific Features	Examples
Goal	Identifies the location of the object at the end of the motion, the terminal boundary of the event.	• applies to motion but not positions. • at end of the motion object is in a position identified by *Goal* relation.	The letter fell to the **floor.** This idea came to **me** from James.
Range	Location of a static entity or the path or area traversed by a moving entity. It can specify meteorological (ambient) predicates.	• with expressions of motion *Range* indicates the path or area traversed. • with position *Range* indicates static location. • associated with ambient predicates. • labelled by others as locative etc.	The ball rolled down the **hill**. **Scotland** is cold. A breeze came to him from the **sea.**
Vehicle	Something that conveys the object and moves along with it.	• *Vehicle* and *Range* may be difficult to distinguish.	The letter came by **plane.** The **tide** floated the oil slick in to the harbour.
Process roles	**Description**	**Specific Features**	**Examples**
Material	The entity that undergoes a process of becoming.	• occur with *Result* relations. • either the *Material* or *Result* relation must combine with *Patient*.	She makes dresses from **flour sacks**.
Result	The entity that results from a process of becoming.	• occur with *Material* relations. • either the *Result* or material relation must combine with *Patient*.	She makes flour sacks into **dresses.**

Table 4 (continued): **Orientation, process, and agentive roles according to Grimes (1975)**

Process roles	Description	Specific Features	Examples
Patient	The relation between a thing that gets changed and the process that changes it, or in the static sense, between a thing that is in some state and the state that it is in.	• labelled by others as patient, objective, neutral, affected, theme, and undergoer. • can be a gradual process. • or abrupt. • processes end, leaving the things that undergo them n some terminal state. • psychological processes such as perception and feelings employ *Patient* relation to identify who perceives or feels.	**The snow** melted. **The foundation** cracked. The chef melted the **butter.** **I** hear. **I** am dizzy.
Referent	The limitation of a process to a certain field or object from the actual application of a process to a patient.	• limits the process to a field. • limits an object from the application of a process to a patient.	We talked about **politics.** This book costs **three dollars.**
Agentive roles	**Description**	**Specific Features**	**Examples**
Agent	Identifies who is responsible for an action.	• occur with process and orientation roles. • does not necessarily imply animateness.	**Simon** made a cake. **George** threw the ball. **Fred** fixed the engine.
Instrument	Entity by means of which an action is carried out.	• if a person or part of that person is used in the instrument role, their body part is the object referred to, not the person acting independently. • may arise through proposition consolidation.	He cut the rope with an **axe.**

Table 4 (continued): **Orientation, process, and agentive roles according to Grimes (1975)**

Agentive roles	Description	Specific Features	Examples
Force	Non-instigative cause.	• asserts a causal relation devoid of responsibility. • incompatible with both agent and instrument. • may take the prepositions *of*, *from*, *on*, or *in*.	**Malaria** killed the girl.
Benefactive	Someone or something on whom an action has a secondary effect, good or ill.	• a supernumerary role that can be attached to almost anything. • it has an agent, a referent, and a patient. • double benefactives are the result of unrestricted consolidation.	We chased the cats out of the attic for **her.** The milk turned sour on **me.**

This framework is an interesting one in terms of potential applicability to languages other than English and other Indo-European ones in that it is motivated largely by considerations of meaning rather than structure. There are, however, some issues that need to be resolved. For example, it would seem, from a semantic perspective, important to distinguish between two types of meaning relation, both of which are listed as *Patient* (see examples (32) and (33) below):

(32) The **butter** melted.

(33) **John** heard the music.

In the first case, a physical process is involved. In the second case, the predicator is a psychological process. In Crombie (1985), the first type is referred to as *Mutant*, the second as *Experiencer*. Furthermore, it is not clear how, in terms of case role, 'the meal' would be classified in the following example (where 'thirty dollars' is the *Referent*):

(34) The meal cost thirty dollars.

Once again, a *Benefactive* role appears although, as indicated above, this is a role that is difficult to motivate in intra-propositional terms.

Whereas Grimes outlines three role types (orientation, process and agentive (causative)), Crombie (1985) outlines five role types: causative roles, participation roles, orientation-transition roles, relational roles and the abaxiant role (see *Table 5*):

Table 5: **The five role (intra-propositional relation) types according to Crombie (1985)**

CAUSATIVE ROLES: concerned with causative relations.			
Intra-propositional relations	**Description**	**Specific Features**	**Examples**
Agent	Sentient entity carrying out an action	• always sentient.	**Alan** signed the contract. **The dog** ate the rat.
Instrument	The entity by means of which an action is carried out.	• rarely sentient • non-volitional.	Alan broke the window with a **hammer**.
Force	Non-sentient causative.	• precludes the explicit or implicit involvement of an agent.	**Typhus** killed the man. **Curiosity** killed the cat.
PARTICIPATION ROLES: concerned with the non-causal involvement of an entity or abstraction in an activity or with a process or state.			
Intra-propositional relations	**Description**	**Specific Features**	**Examples**
Patient	The entity or abstraction involved non-causally in an activity	• an *Activity-participation Role.* • occur with dynamic predicate types: general activity, momentary action, and mental activity.	He kicked the **dog.** He chose a **shirt.** He awarded a **medal.** He rejected the **idea.**
Assignee	The sentient entity (or collection of sentient entities) to whom/which the patient of an activity predicate is assigned.	• an *Activity-participation Role.* • occur with dynamic predicate types: general activity, momentary action, and mental activity.	He awarded a goal to the **team**.

Table 5 (continued): **The five role (intra-propositional relation) types according to Crombie (1985)**

PARTICIPATION ROLES: concerned with the non-causal involvement of an entity or abstraction in an activity or with a process or state.			
Intra-propositional relations	**Description**	**Specific Features**	**Examples**
Material	The entity that undergoes a process of becoming.	• occur with factitive predicates. • occurs with *Result* relations.	She creates puppets from **gloves.** She makes **clay** into bowls.
Result	The entity that results from a process of becoming.	• a Factitive role. • occur with factitive predicates. • occur with *Material* relations	She creates **puppets** from gloves. He knitted a **sweater.**
Mutant	The entity that is changed by a process:	• ± sentient. • a *Process-participation* role. • occur with process predicates.	The **butter** melted. The **plant** grew. The **boy** grew tired.
Durant	The entity that is an identified state.	• ± sentient • a *State-participation* role. • occur with stative predicates.	The door is green. The **toy** is broken.
Experiencer	The entity directly involved in an experiential state	• sentient • a *State-participation* role. • occur with stative predicates.	**He** heard the music. **He** feels hungry. **He** likes music.
Appertainant	The entity or abstraction experienced in a particular way by a sentient entity	• ± sentient. • a *State-participation* role. • occur with stative predicates.	He heard the **music.** He likes **John.**

Table 5 (continued): **The five role (intra-propositional relation) types according to Crombie (1985)**

PARTICIPATION ROLES: concerned with the non-causal involvement of an entity or abstraction in an activity or with a process or state.			
Intra-propositional relations	**Description**	**Specific Features**	**Examples**
ORIENTATION-TRANSITION ROLES: considered with movement or static location.			
Object	The entity described as being in a particular location or as being involved in a transitional event	• ± sentient. • or, metaphorically, the abstraction.	The **coin** rolled down the hill.
Source	The location of an entity at the beginning of a movement	• occur with a *Goal* relation. • Physical movement may not be involved: it may be metaphorical.	The book fell from the **table** to the chair. The book was passed from **Mary** to John.
Goal	The location of the entity at the end of a movement.	• occur with a *Source* relation. • physical movement may not be involved: it may be metaphorical.	The book fell from the table to the **chair.** The house passed from father to **son.**
Range	The location of a static entity or the path or area traversed by a moving entity.	• *Range* is associated with meteorological (ambient) predicates.	The cat is on the **bed.** The egg rolled down the **hill.**
RELATIONAL ROLES: considered with relational predicators.			
Referee	The entity to which a relational predicate is linked.	• + sentient	It concerns **him.** **He** deserves a prize.
Referent	The entity to which a Referee is linked through a relational predicate.	• ± sentient.	**It** concerns him. He deserves a **prize.**

Table 5 (continued): **The five role (intra-propositional relation) types according to Crombie (1985)**

RELATIONAL ROLES: considered with relational predicators.			
Intra-propositional relations	**Description**	**Specific Features**	**Examples**
Quantant	The expression of extent to which an entity is linked by a relational predicate.	• occur with either a Referent or Referee relation.	The book cost **eighty pence.** He weighs **one hundred and eighty pounds.**
THE ABAXIANT ROLE:			
Abaxiant	Entity affected by an action or process but not directly involved in action/process or in its outcome.	• + sentient.	She washed the car for **me.** He welcomed the guests on **my** behalf. The milk turned sour on **me.**

If the *Abaxiant* relation is removed (for the same reason as it was suggested above that *Benefactive* be removed), we are left with a four-way distinction: causative roles participation roles, orientation-transition roles and relational roles.

When this framework is compared with that of Longacre (1996), a number of fundamental differences can be detected. In particular, the role *Experiencer* in Longacre's system includes what is referred to as *Patient* in Crombie (1985). Thus, 'Bill' in example (35) below would belong to the *Experiencer* role which is defined by Longacre as an animate entity whose registering nervous system is relevant to the predication, particularly as the predicator is the same in each case and there appears to be no area of grammar that reflects this distinction.

(35) John kicked Bill.

In fact, however, it is difficult to see why Bill in example (35) above should be different, in terms of perceptual space, from 'the table' in (36) below. In other words, it is difficult to see why a registering nervous system should be relevant in this instance.

(36) John kicked the table.

For Longacre, intentionality is fundamental to agency, an *Agent* being an animate entity which intentionally instigates a process or action. Thus, in the absence of an adverb such as 'intentianally' or 'accidentally', it is unclear whether 'Jean' in example (37) below should be assigned to the *Agent* role:

(37) Jean dropped the hammer.

There are other difficulties in relation to Longacre's framework. Thus, for example, *Range* is the role assigned to either the product of the activity of a predicate or any surface structure nominal or adjectival that completes or specifies the predicate. This means that all of the bolded sections in examples (38) - (40) below would be assigned to *Range:*

(38) Anthony sang a **song**.

(39) The soup tastes **salty**.

(40) They made a **table**.

The problem here is that the specification appears to be largely syntactically rather than semantically motivated. However, in the case of the *Instrument* role as defined by Longacre, the definition appears to be neither syntactically motivated nor semantically motivated in that both 'tornado' in example (41) below and 'knife' in example (42) below would come within the definition of *Instrument* which includes both entities that trigger change (non-intentionally) and that which is used by an agent to accomplish an action or instigate a process:

(41) A **tornado** wrecked the house.

(42) He cut the rope with a **knife**.

A rather different problem is encountered in relation to Longacre's definition of *Source* which, in making reference to both place of origin and the entity from which a physical sensation emanates, allows both 'chair' in example (43) below and 'concert' in (44) below to be classified as *Source*:

(43) He watched the **concert**.

(44) He fell from the **chair**.

Thus, a semantic distinction which is, in fact, directly reflected both in the syntactic structure of English (and Māori) is not reflected in the classification framework. Problems of this type become even more apparent where Longacre discusses causatives which "cover several problems which relate to case or role and case frame analysis" (p. 211). Here, he concludes that examples such as (45) below can be accommodated within the *intra*-propositional framework although he acknowledges that "more frequently than not the actual surface structure of a language . . . involves two clauses with two separate verbs" (p. 213). The dual propositional nature of example (45) below (in which the first predicator is unstated) becomes clearer when an example such as (46) below is taken into account. Thus, there is, in both examples, a causative relationship between propositions (an *inter*-propositional relationship):

(45) John cheered Mary up.

(46) John cheered Mary up by playing the piano.

Recognising the importance of the fact that there are relations both within and between propositions, Fillmore (1977a) notes that his earlier concern was "with the inner structure of clauses rather than with the semantics of interclausal connections through the devices of coordination and subordination" (p. 60). Thus, "the grammatical functions of the nominals that represent the entities that are put into perspective are determined in part by something like a DEEP CASE HIERARCHY", whereas "other parts of the associated scene can be introduced with prepositional phrases, with adverbials of various kinds, and with subordinate clauses". So, "the 'circumstantial' constituents of a sentence need not be aspects of scenes that are specifically required by a particular type of situation" (p. 74):

> Since any event takes place in time, any event sentence can contain a time adverbial; since many kinds of events take place in specific locations, sentences representing such events can contain locative adverbials; and so on (p. 74).

Drawing upon the research of Berlin and Kay (1969) and Rosch (1973) on prototypes, Fillmore (1977b) notes that word frames may refer to "any system of linguistic choices of grammatical rules or grammatical categories — that can get associated with prototypical instances of scenes" (p. 63). Thus, the explicit linguistic choices made by the speaker "activate certain scenes in the interpreter's repertory of scenes, and as the linguistic data continue to be produced and processed, these original scenes get linked to larger scenes [and] their 'blanks' get filled in" (p. 74). Societies (and languages) will, therefore, differ in respect of the options available in relation to a particular perspective on complex scenes.

Conclusion

What Fillmore's observation (Fillmore, 1977b) about the reflection of prototypical instances of scenes suggests is that different societies will have different priorities in relation to the division of perceptual space. Thus, there are likely to be cultural differences in terms of which areas of perceptual space are seen as sharing fundamental similarities and which are seen as being fundamentally different. For example, some cultures may treat animacy as a fundamental aspect of the division of perceptual space (thus clearly differentiating between animate and inanimate sources of change) whereas others may not. We might, therefore, anticipate that the semantic and syntactic systems of different languages will reflect these differences, differences which will have implications for the classification of intra-propositional and inter-propositional relationships. In *Part 2* of this paper (to appear in a later issue of this Journal), an existing intra-propositional analysis of Māori (Bauer, 1981) will be examined in the context of the division of perceptual space as indicated in the semantic and syntactic structure of Māori.

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