

Sui Generis Genericity

Hana Filip and Greg Carlson

1. Introduction

There are various opinions about how the phenomenon of sentential genericity (Carlson and Pelletier, 1995) is related to other classes of expressions of natural language. The notion of 'genericity' is most commonly viewed as having close ties to tense, mood and aspect (cf. Dahl, 1985; Comrie, 1985). For instance, philosophers and occasionally linguists (e.g. Dahl, 1975, 1985, and 1995) make use of the term 'generic tense', thereby implying that genericity is a member of the tense system of a language. Less commonly, genericity is thought to reside among the system of modals. (There also have been other proposals, for instance, Farkas and Sugioka (1983) situate genericity in the system of frequency adverbs.) However, the most widespread claim is that genericity is a part of the aspectual system of natural language (cf. Comrie, 1976:26ff., 1985:40). The very proliferation of existing claims indicates that genericity is at best an uncertainly classifiable phenomenon. In this paper, however, we argue that sentential genericity is a category in its own right, rather than just a member of some other category system. The main focus of this paper is the delimitation of genericity from aspect.

Let us first clarify what 'genericity' is, and what it means to be a 'member of a category system'. The latter notion, a stock concept of linguistics, is standardly taken to mean that formal expressions are in complementary distribution with other members of the same category, syntactically and morphologically, and, furthermore, semantically. For instance, we take present and past tenses in English to be members of the same category, because they do not co-occur on the same verb, the formal expression of one precludes the expression of the other, and in certain constructions (e.g. infinitives) neither can be expressed morphologically. On the other hand, the English progressive aspect and tense are not members of the same category, because the progressive may co-occur with any tense, may appear in places precluding tense, and the expression of progressiveness is semantically independent of the expression of tense in that both

may independently contribute to the sentential semantics. These are the simple cases, at least.

The notion of 'genericity' is more complex and extensively discussed in Carlson (1977, 1989), Carlson and Pelletier (1995). But we basically characterize a generic sentence as follows: "Notionally, a generic sentence is one expressing a regularity, as opposed to an instance from which one infers a regularity. For example, the generalization *The sun rises in the east* expresses a regularity, while *The sun rose this morning in the east* expresses an instance from which, along with other such instances, one infers a regularity" (Carlson, 1989:167). Further, "[g]eneric sentences...are (i) stative sentences (ii) based on lexically non-stative predicates and (iii) they are intensional and (by all appearances) non-monotonic" (Carlson, 1989:168). The most intriguing and the least understood property of generic sentences is their intensionality and non-monotonicity. They express "...'principled' generalizations over the entities of a class, and do not capture mere 'accidental' facts about them" (Krifka et al, 1995:44), while at the same time they allow for 'exceptions' or 'counterexamples' (unlike universally quantified sentences). Crucially, genericity does not involve only quantity, and hence must be distinguished from iteration or repetition, from a pure multiplicity of events, but it depends on what counts as 'normal', 'typical', 'characteristic'. Sentential constructions referred to in the literature as 'habitual', 'habituaive', 'characteristic', and the like, all express *sentential genericity* and contain some generic operator that is directly applied to or tightly related to the verb.

According to Dahl (1985:99-100), "[t]he most frequent case is for generic sentences to be expressed with the most unmarked TMA [tense, mood, and aspect, HF&GC] category". However, there are many languages which exhibit formally marked expressions of genericity (e.g., Guarani, Georgian, Kammu, Czech, Akan, Wolof, to take just a few languages mentioned in Dahl, 1985). In assessing the question, then, of whether genericity is a part of the system of aspect or another system, we examine largely new data from Slavic and several non-Indo-European language families involving overt generic markers. There are three cross-linguistic databases we draw upon: Dahl's (1985) data based on questionnaires, Carlson's unpublished but more extensive survey of data drawn from reference grammars, and Filip's work on genericity in Czech (1994).

We begin with a discussion of the relationship between genericity and tense. We will give several arguments for the formal and semantic independence of genericity from tense. Then we will show that the same arguments apply to the relationship between genericity and aspect. To the extent that one subscribes to the validity of the arguments for the independence of genericity and tense given in this section, one should also accept the validity of parallel arguments in the case of genericity and aspect. From this we will conclude that genericity is not a member of either the tense or aspect category.

2. Genericity vs. tense

To view genericity as a part of a tense system is plausible because, for instance, in English the simple present tense of "dynamic" episodic predicates selects for generic readings, as illustrated in (1):

- (1) a. ??John writes a poem / *John smokes a cigarette
b. John writes poems / John smokes cigarettes

Moreover, in many languages the expression of genericity is conflated with tense marking. For instance, the English past generic *used to* conflates genericity and past tense.

However, it is easy to show that genericity and tense are not members of the same category. Consider first a notional argument. Tense is a deictic category, it is a "grammaticalisation of location in time" (cf. Comrie, 1985:1), while genericity is clearly a non-deictic category. "Epistemologically, a generic sentence is one expressing a truth (or falsehood) the true value of which cannot, in general, be ascertained solely with reference to any particular localized time. For instance, the present tense sentence *Dogs bark* is true, even though at the present time there may be no dogs barking" (Carlson, 1989:167). Genericity and tense seem to fulfill quite different semantic roles.

Second, generic interpretation is not dependent upon tense in any sense. Generic sentences can be in any tense, as so-called "timeless" generic sentences may contain verb forms in any tense. This is shown in the following English examples:

- (2) a. Corruption starts at the top
b. Men were deceivers ever
c. The poet will go to any end to make a rhyme

Third, and related to this, genericity is semantically independent of tense, in that both independently contribute to the sentential semantics. As Dahl (1975; 1985:100), among others, points out, "a law or lawlike statement may be restricted in time, and this time may well be in the past or in the future." This point is illustrated by examples in (3):

- (3) a. Dinosaurs (usually) ate kelp
 b. The current President eats broccoli
 c. Starting next Monday, this office will be open only from 2pm to 4pm

Fourth, generic markers, that is, markers restricted to only generic contexts, are *formally* independent of overt tense markers, as overt generic and tense markers freely co-occur. As a case in point let's look at the Slavic generic marker -va-. We use -va- as a cover term for the variety of allomorphs in which this suffix is realized in actual verb forms. The generic suffix -va- has two crucial properties: it attaches to imperfective verbs, and it creates an unambiguously generic interpretation for a whole sentence. To illustrate the use of this suffix, we use examples from Czech. In contrast to other Slavic languages, such as Russian, (cf. Kućera, 1981:177; Petr, 1986), in Czech the suffix -va- is used very productively in all styles of speech. Table 1 illustrates the derivation of inherently generic verbs with -va- in Czech:

Table 1: Derivation of generic verbs in Czech

imperf. simplex	□	derived generic imperf.
hr%oa-t	□	hr%oa- <u>VA</u> -t
play-INF		play- <u>HAB</u> -INF
'to play'		approximately: 'to tend to play',
'to be playing'		'to have the habit of playing'

From hr%aat 'to play', 'to be playing' we get the habitual verb hr%avat meaning something like 'to play usually, often, sporadically, habitually' or 'to tend to play'. Both hr%aat and hr%avat are imperfective.

Now, to return to the point at hand, the generic suffix may freely co-occur with any tense, PAST, PRESENT or FUTURE, as illustrated in (4):

- (4) a. Karel hr%oa-va-l hokej
Charles play-HAB-PAST hockey
'Charles used to play hockey' [remote past]
- b. Karel hr%oa-v%oa hokej
Charles play-HAB.PRES hockey
'Charles usually plays hockey'
- c. Karel bude hr%oa-va-t hokej
Charles AUX.FUT.3SG play-HAB-INF hockey
'Charles will usually play hockey'

Notice that in Czech the combination of the generic with the past tense marker amounts to 'remote past' reference, as (4a) illustrates. In many languages we can find affinities between genericity and temporal distance with respect to the time of the utterance, that is, generic markers combined with tense markers often entail relative remoteness from or closeness to the time of utterance. What exactly gives rise to such affinities is still an open question. (For a preliminary discussion of Czech data see Kuçcera, 1981; Filip, 1994).

Fifth, we also see that generic interpretations and forms are compatible with constructions precluding the expression of tense (e.g. non-finite forms such as infinitives, gerunds, imperatives). This is shown in the English example (5), semantically, and in the Czech examples in (6) which show -va- formally co-occurring with infinitival and imperative markers:

- (5) a. To know him is to love him
b. Attending class (i.e. regularly) is very important
- (6) a. J%oid%oa-v%oa-t kavi%oar - to by se Ti
chtčelo!
eat-HAB-INF caviar - it COND REFL you wanted
'To eat caviar - surely, that would be nice for
you, wouldn't it!'
- b. Nese~~d~~%oa-vej poçr%oad v koutçe!

NEG.sit-HAB.IMP always in corner
'Don't constantly/always sit in the corner!'

Finally, further disconnecting any linkage between tense and genericity is the fact that there are tenseless languages that have specific generic markers, such as American Sign Language. Moreover, other tenseless languages, such as Chinese, Burmese and Dyirbal, for instance, convey generic statements by other means. For example, in Dyirbal and Burmese genericity is conveyed by means of a modal distinction between realis and irrealis--in Burmese realis and in Dyirbal irrealis convey present habitual (cf. Comrie, 1985:51).

To summarize the points made so far, we have argued that tense and genericity are independent of one another and that genericity is not a part of the tense system of natural language. Another way of expressing this is to note that all the possible combinations in the domain of formal expression of genericity and tense are attested, as seen in table 2:

Table 2: Genericity and tense markers

[+genericity,	+tense]	Czech
[+ genericity,	-tense]	American Sign Language
[- genericity,	+tense]	English
[- genericity,	-tense]	Chinese

In the next section we will turn to the question of the relation between genericity and aspect. We will show that there is no more reason to assume that genericity is a part of the aspect system than there is to assume that genericity is a part of the tense system.

3. Genericity vs. aspect

We agree with Comrie's conclusion that genericity is not a part of the tense category (Comrie, 1985:40). However, we would like to take issue with the rest of Comrie's conclusion: "In part, this is definitional, a decision not to call habituality a tense, but there is also empirical content to the claim, namely that grammatical expression of habituality will always be integrated into the aspectual or modal system of a language rather than into its tense system" (Comrie, 1985:40). Comrie's position is by no means unusual, rather it is the prevalent opinion in the current research on genericity and related issues. We choose Comrie's formulation,

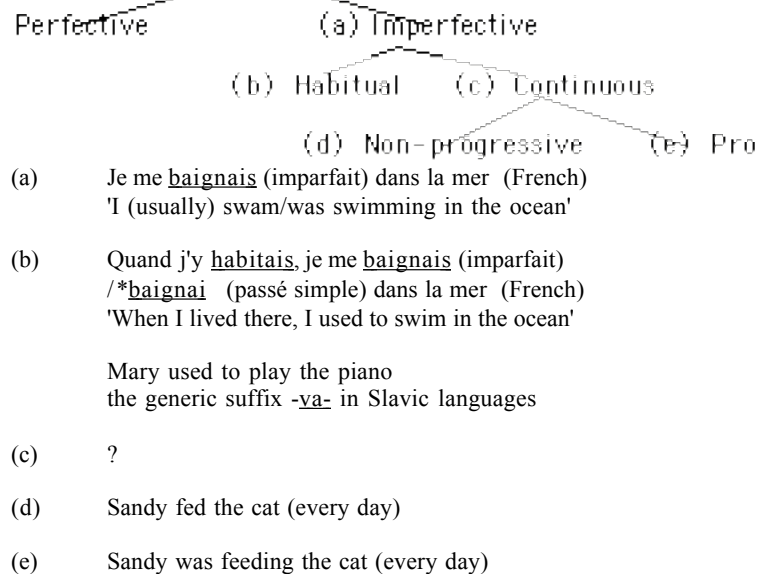
because it succinctly and better than any other similar formulations characterizes the position which we would like to dispute.

In evaluating the claim that genericity is a part of the aspect category, we first clarify what 'aspect' is. It is currently used in two different, but related, ways. One of them concerns the 'perfective-imperfective' distinction, or 'grammatical aspect'. In this sense, it is mainly used for the expression of aspect by means of inflectional morphology, as in the English 'progressive/non-progressive' distinction: *John was recovering* vs. *John recovered*. The term 'aspect' is also understood in the sense of the 'telic-atelic' distinction, 'lexical aspect', 'aspectual class' (Dowty, 1979), 'situation type' (Smith, 1991), 'Aktionsart', or 'eventuality type' (Bach, 1981, 1986; Parsons, 1990). This view of aspect originated in the classification of verb meanings in philosophy (cf. Ryle, 1949; Kenny, 1963, Vendler, 1957, 1967) and it was introduced into modern linguistics by Dowty (1972, 1979).

There are, accordingly, two different views on the relation between 'grammatical' and 'lexical' aspect. A 'two-component theory of aspect' (the term was coined by Smith, 1995) assumes that the 'grammatical' and 'lexical' aspect are separate categories whose members interact in systematic and predictable ways (cf. Comrie, 1976, 1985; Dowty, 1977, 1979; Dahl, 1981, 1985; Smith, 1991, 1995; Filip, 1993; Depraetere, 1995). In contrast, what may be dubbed a 'one-component theory of aspect' assumes that there need be drawn no, or no strict line, between the 'grammatical' and 'lexical' aspect (cf. Bennett, 1981; Vlach, 1981; Kamp and Rohrer, 1983; Hinrichs, 1985; Krifka, 1986, 1992; Parsons, 1990).

For our present discussion of genericity we need not settle the thorny issues related to the delimitation of the category 'aspect'. However, to avoid any possible confusion, we mainly focus on the claim that genericity is a part of the aspect category in the sense of 'grammatical aspect', a view that is best expressed in Comrie (1976). According to Comrie (1976:25), genericity, his "habituality", is just one of the categories that are subsumed under "a single unified concept" imperfectivity, this is shown in table 3, taken from Comrie (1976:25).

Table 3: Classification of aspectual oppositions (Comrie, 197



The main reason why Comrie (1976:25ff.) includes habituality as a special case of imperfectivity is that, as he notes, imperfective markers are often compatible with a generic interpretation. He states that "a large number of languages (...) have a single category to express imperfectivity as a whole, irrespective of such subdivisions as habituality and continuousness" (Comrie, 1976:26). Comrie cites French, Russian, Bulgarian, Modern Greek, and Georgian as relevant examples. However, we arrive at a very different conclusion than Comrie does if we take into account the whole range of the formal means of expressing genericity and how generic markers interact with morphemes specifically dedicated to the expression of aspect. We will show that there are a number of problems with the view of genericity as a subclass of imperfectivity and that such a view must be rejected.

First, not only general imperfective forms, but also perfective verb forms can freely be used, and are often used, for the expression of generic statements. Consider the following examples from Czech (7) and Russian (8):

(7) Kdykoli tam pčrijdu^P, nab%oidnou^P mi slivovici

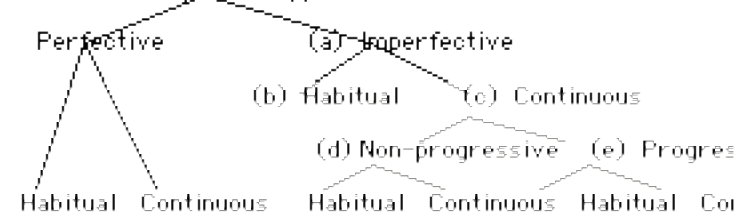
whenever there come.1SG offer.3PL me plum.brandy
 'Whenever I visit there, they offer me plum brandy'

- (8) If you don't understand (poymete^P) my explanation, I can
 always repeat it for you. I'll repeat (povtor'u^P) it for you any
 time

(The perfective aspect of a verb form is indicated by the superscript 'P'. The Russian example is taken from Rassudova (1984:16ff.), reported in Binnick (1991:155)). Given that habituality is one of the contextually determined uses that perfective verb forms can assume, it follows that perfectivity should include habituality as a special case, as well, which would mean that aspect and habituality merely cross-classify.

Second, if the general imperfective category includes as a special case 'habituality', because it can be used in habitual statements, then other subdivisions of the imperfective, in particular, the progressive and non-progressive, should also include 'habituality' as a special case, because they can also be used in habitual statements. (See examples (d) - (e) below table 3.) This observation, along with the observation that perfective forms can be used in generic statements, would then lead us to the following revision of Comrie's chart:

Table 4: Revision of Comrie's (1976:25) table 'Classification of aspectual oppositions'



Such a revision of Comrie's original chart clearly shows that (i) habituality and aspect, perfective and imperfective, are notionally orthogonal to each other, and hence independent of each other, and (ii) that habituality is independent of the imperfective and its subcategories.

Third, we also draw a different conclusion from the co-occurrence restrictions among the categories that Comrie subsumes under 'imperfectivity'. As it has been emphasized, we take the

question of which, if any, "system" genericity belongs to as a formal claim, that is, we examine the properties of specifically generic markers, which are expressed as *function morphemes within the same verb*. We believe that this strategy gives us clearer and more reliable insights into the nature of genericity. Comrie's (1976, table I, p. 25) 'classification of aspectual oppositions' appears to be a classification of notional and formal categories. For example, the category 'habitual' covers the explicit markers of genericity and the habitual uses of general imperfective verb forms. Moreover, the category 'continuous', the unmarked member in the opposition 'habitual vs. continuous', is characterized in purely negative notional terms in opposition to 'habituality' as "imperfectivity not determined by habituality" (Comrie, 1976:34) and as having 'progressivity' as one of its subdivisions. As far as we can tell, there do not seem to be imperfective forms (with or without explicit markers of 'continuousness') that exclude the habitual meaning or are not determined by habituality, while at the same time allowing for a progressive or a non-progressive interpretation (this is indicated with "?" in table 3). Notice that in languages that have explicit generic markers, the corresponding unmarked form is the general imperfective form, which can be used in generic statements and in statements denoting on-going events. This situation can be found in Czech, for example, which will be described in the next few paragraphs.

The most compelling argument against regarding genericity as a subcategory of imperfectivity is the observation that in those languages that have specific markers for both the genericity and imperfectivity, these two types of markers do not stand in paradigmatic alternation; rather they may freely co-occur in a single verb form. Let us return to consideration of the Czech -va-, first examining the examples in (9).

- (9) a. Karel hr%aal v tom okamžiku /obyčejnče hokej
 Charles play.PAST at that moment / usually hockey
 'Charles was playing right then hockey' /
 'Charles usually played hockey'
- (9) b. Karel hr%aa-va-l *v tom okamžiku /obyčejnče hokej
 Charles play-HAB-PAST *at that moment/usually hockey
 'Charles usually played hockey'

Simple imperfective verbs, such as *hr%oaI* in (9a), are not intrinsically generic, that is, they are not sufficient for the expression of generalizations over episodic situations or characterizing properties of objects. They can be used in sentences that denote particular on-going situations, here emphasized with the time-point adverbial *v tom okamčcziku* 'then/at that moment', or in sentences that denote generic statements, here indicated with the generic adverbial phrase *obyččejnčče* 'usually'. The addition of the generic suffix *-va-* in (9b) makes the generic reading mandatory. Notice that generic sentences, such as (9b), cannot report particular events, and therefore they are incompatible with any specification of time that denotes a specific reference point.

In Slavic languages some imperfective forms are overtly marked by the suffix *-va-*, which is homonymous with the generic suffix *-va-*. However, the two suffixes can be clearly distinguished from each other. For instance, only the generic suffix *-va-*, but not the imperfectivizing suffix *-va-*, may be reduplicated for emphasis.

(10)	simplex V_i	□	derived generic V_i	□	reduplicated V_i
	ps%oa-t	□	ps%oa-va-t	□	ps%oa-v%oa-va-t
	write-INF		write-HAB-INF		write-HAB-HAB-INF
	'to write'		'to write habit.'		'to write habit.'
	'to be writing'				(emphatic)

But more importantly, the two homonymous suffixes, the generic and imperfective one, attach to different bases. The generic suffix *-va-* can be only attached to imperfective verbs, while the imperfective suffix *-va-* attaches only to perfective verbs, and imperfectivizes them. To illustrate the use of the imperfective suffix *-va-*, take, for example, the imperfective verb *zapisovat* 'to note', 'to record'; 'to be noting', 'to be recording' that is derived from the perfective verb *zapsat* 'to note', 'to record'. The perfective verb *zapsat* and the secondary imperfective verb *zapisovat* derived from it differ only in aspect (they build what is traditionally called "an aspectual pair"). This is shown in table 5:

Table 5: Derivation of prefixed perfective and suffixed secondary imperfective verbs in Czech (following Comrie, 1976:90)

simple V_i	<u>ps%o%oat 'to write'</u>
□	□

prefixed V_p	<u>na-</u> psa-t PREF-write-INF	<u>za-</u> psa-t 'to record' PREF-write-INF
	□	□
secondary V_i	*	za-piso- <u>va</u> -t PREF-write-IPF-INF

The suffix -va- in secondary imperfective verbs, such as zapisovat 'to note', 'to record'; 'to be noting', 'to be recording', cannot be the generic suffix, because secondary imperfective verbs are not intrinsically generic. In this respect they behave just like simple imperfective verbs (see example (9a) above). They can be used in sentences that denote particular on-going situations and in generic statements, as is shown in (11).

(11)
 Zapiso-va-l zrovna / obyčejně v%oysledky
 PREF.write-IPF-PAST at that moment / usually results.PL.ACC
 'He was right at that moment recording the results' / 'He usually recorded the results'

In fact, secondary imperfective verbs like zapisovat behave so much like simple imperfective verbs that they may also take the generic suffix -va-. This derivational pattern is shown in table 6.

Table 6: Derivation of generics from secondary imperfective verbs

secondary V_i	□	derived generic V_i
za-piso-VA-t	□	za-piso-
v%o%o%o%o%o%o%o%o%o%a- <u>VA</u> -t		
PREF-write-IPF-INF		PREF-write-IPF- <u>HAB</u> -INF
'to note', 'to record';		'to tend to record, note'
'to be noting', 'to be recording'		

From zapisovat 'to write down' we can derive zapisov%oavat with the generic meaning that contains both the imperfectivizing and generic suffixes. Zapisov%oavat is inherently generic, and (12) shows that it is incompatible with time-point adverbials, such as zrovna 'right then, at that moment':

(12)

Zapiso-v%oa-va-l *zrovna / obyčejně v%oysledky
 PREF.write-IPF-HAB-PAST *at that moment / usually results.PL.ACC
 'He usually recorded the results'

To summarize, the above Czech examples clearly show that genericity is formally and semantically independent of imperfective aspect. The generic and imperfective markers cannot be taken to be formal members of one and the same category, because they co-occur within the same verb form, that is, the formal expression of one does not preclude the expression of the other. Moreover, the generic and imperfective marker each make an independent contribution to the sentential semantics, hence they are semantically independent of each other.

One possible counterargument against this conclusion would be the following one: The fact that explicit markers of imperfectivity co-occur with explicit markers of genericity within the same verb form can be explained by arguing that forms with generic markers correspond to part of the meaning of imperfectivity (cf. Comrie, 1967: 24-5). The problem with this counterargument is that in order for it to be valid, we would also expect to find imperfective markers to co-occur *within the same verb form* with explicit markers of progressivity, and to find generic markers on continuous categories, and non-progressed ones (n.b.: as opposed to generic interpretations). This does not seem to be the case, at least to our knowledge. (Of course, there are *periphrastic progressive forms* that involve the imperfective and progressive markers, as in the Italian example Gianni stava cantando, quando la polizia è arrivata 'John was singing, when the police arrived' (Italian). This form is optional, as the general imperfective form, Gianni cantava, does not exclude the progressive use.)

We believe that the situation in Czech, and other Slavic languages, is indicative of a much wider pattern that holds for generic markers in other languages of the world. There are many languages with generic markers which, like Czech, allow for co-occurrences with imperfective morphemes, and, in some cases, demand it: Telefol, Nahuatl, Ethiopic Semitic, and Maung, are just a few. It has been observed that perfective verb forms can be freely used for the expression of generic statements (see Czech and Russian examples above). In addition, and what is even more significant, generic markers can be attached to verb forms with specific perfective markers. For instance, in the New Guinea

language Awa (Loving and McKaughan, 1964) generic marking is achieved through complete reduplication of the verb stem. The generic forms may clearly co-occur with 'punctiliar' and 'completive' morphemes (themselves reduplicated as a part of the verb stem), as is illustrated in (13):

- (13) Awa (New Guinea)
- a. subiq- ma- subiq- mar- iq
 hit PUNCT hit PUNCT 3PERS
 'He is always hitting'
- b. taga- ru- taga- rur- iq
 touch COMPL touch COMPL 3PERS
 'He is always looking, finishes and looks again'

In another Pacific language, Wahgi, Phillips (1976) reports that there are two 'habituaive' morphemes that occur as a part of the 'aspectual' complex of the verb that includes "absolute completive, completive, continuative, potential, habituaive, and similitude". One generic morpheme may co-occur with all these except for the 'continuative'; the other may not occur with the 'similitude' aspect in addition. But both occur freely with what are here described as 'completive' and 'absolute completive' morphemes. Other languages where there are reported co-occurrences between generic and perfective morphemes include Kapau (Oates and Oates, 1966), Mba (Tucker and Bryan, 1966), Fore (Scott, 1973), Engenni (Thomas, 1978), Southeast Pomo (Moshinsky, 1974), and others.

On the basis of our survey of the relation between genericity and aspect across languages we come to the conclusion that all the possible combinations in the domain of formal expression of genericity and aspect are attested. This is shown in table 7:

Table 7: Genericity and (grammatical) aspect markers

[+genericity,	+aspect]	Czech
[+ genericity,	-aspect]	Guarani
[- genericity,	+aspect]	French
[- genericity,	-aspect]	German

Along with other observations in this section, this supports our claim that genericity cannot simply be a subcategory of imperfectivity, contrary to Comrie (1976, 1985), and others. In general, we do not see any necessary formal connection between genericity and aspect.

To conclude the section on genericity and aspect, let us briefly look at the proposal to regard genericity as a special case of 'lexical aspect'. At the outset of this paper we claimed that generic sentences are semantically stative (cf. Carlson, 1989:168; Carlson and Pelletier, 1995). Why cannot we then consider genericity to be a special type of states? This position is taken, for example, by Smith (1991:87). Against this it can be objected that generic sentences are not just stative sentences and that there are significant differences between generic sentences and those with lexically stative verbs. A detailed analysis of these differences can be found in Krifka et al (1995). Let us here mention just two. First, only generic sentences, but not sentences with lexically stative predicates, have corresponding progressive counterparts denoting an instance from which, along with other such instances, one can infer a regularity.

- (15) a. Pluto chases trucks
b. Pluto is barking and chasing that UPS truck again - go and put him on a leash

- (16) a. John knows French
b. *John is knowing French so well

The reason for the ungrammaticality of (16b) is motivated by the observation that lexically stative predicates "have no corresponding episodic predicate in the lexicon that characterizes all the situations which count as direct evidence of the 'knowing French' behavior" (Krifka et al, 1995:37). Ryle's explanation (1949, chap. 5) for such lexical gaps is that there are so many different behaviors in which 'knowing French' can manifest itself on a given occasion that there can be no single episodic verb to denote them all. Second, the eventuality type of the individual instances that constitute a regularity is preserved in the derived generic sentence. For example, generics based on agentive stage-level predicates can be combined with forms related to agency and control. In contrast, lexically stative predicates never allow this, as is shown in the following examples (taken from Smith, 1991:42-3):

- (17) a. Mary deliberately refuses dessert every Friday
 b. I persuaded Mary to play tennis every Friday
 c. What Mary did was play tennis
- (18) a. ?* John deliberately knew Greek
 b. ?* I persuaded Mary to know Greek
 c. ?* What Mary did was know the answer

4. Conclusion

We have shown that there is no necessary formal connection between genericity and aspect. Surveying reports from (several hundreds of) grammars of how generic markers fit in morphologically with the TMA categories, we actually find no really consistent pattern. One simply does not find generic markers consistently expressed as alternatives to aspectual markers, or tense markers, or any other identifiable class. So, for instance, in Swahili there is the generic prefix hu- which alternates with the infinitive marker ku- (Polomé, 1967). But, if we move to Gibadal, the generic marker alternates with 'subordinating' morphemes that have nothing to do with infinitival marking (Geytenbeck and Geytenbeck, 1971). Ewondo (Redden, 1979) has habitual marking reportedly alternating with the markers for, notionally, "iterative, nearly, in spite of, always, recently, first, properly, and fast". Piro, according to Matteson (1965), lists the 'characteristic' marker among a class of items including "modification, incorporated noun, incorporated postpositive, relational -le-, temporal, transitory, and frequentitive continuative". The situation in Izi appears similar (Meier, Meier, and Bendor-Samuel, 1975) in so far as it appears to have a large and heterogeneous class of 'extensor' morphemes in which the generic marker participates. Gwari (Hyman and Maguji, 1970) has a marker that alternates with main verbs. Otoro, Shilluk and Lango (Tucher and Bryan, 1966) have generic markers that are in complementary distribution with present progressive, past, and future markers, whereas the closely related Alur has a 'habitual aspect' which co-occurs with all tenses instead of alternating with them. Yoruba has a generic preverbal marker that excludes other particles 'with modal meaning'. In Kewa, a New Guinea language, the generic suffixes alternate with 'conditional, emphatic, interrogative, imperative, oppositive' markers (Franklin, 1964). In Biloxi, the generic 'mode' has its own distribution (Einandi,

1976). If this all sounds a bit inconsistent and confusing, that is precisely the point.

To claim that there is no necessary formal connection between genericity and aspect is not to deny that there are certain formal and semantic affinities between genericity and aspect. Natural languages either always or almost always allow for the expression of genericity by imperfective forms alone. Furthermore, in many languages, there is a tendency for the specifically generic morphemes to attach to imperfective bases (e.g., Czech). This raises the question whether this is a necessary co-occurrence on general semantic grounds. In fact, generics are aspectually stative (cf. Carlson and Pelletier, 1995) and the aspectual character of imperfectives seems to be more semantically compatible with stativity than that of perfectives. There is also a historical connection between imperfectivity and genericity. Formal markers of imperfectivity may develop from markers of iterativity, frequency, or genericity and/or be synchronically homonymous with markers of imperfectivity (cf. Czech, Russian, Polish). However, at the same time, we see that there is no conflict between the semantics of perfectivity and genericity. In a number of languages many specifically generic morphemes can freely co-occur with perfective bases and perfective verb forms can freely be used for the expression of generic statements (in Slavic languages). Our cross-linguistic studies strongly suggest that if languages use perfective verb forms to convey genericity and/or use specific generic markers on perfective verb forms for this purpose, they will also use imperfective verb forms, progressives, continuatives, etc. in this way. This finding suggests a possible implicational universal. We would like to leave the possibility of such a universal for future research.

References

- Bach, E. 1981. "On Time, Tense, and Aspect: An Essay in English Metaphysics." P. Cole (ed.), *Radical Pragmatics*, pp. 63-81.
- Bach, E. 1986. "The Algebra of Events". *Linguistics and Philosophy* 9., 5-16.
- Bennett, M. 1981. "On Tense and Aspect: One Analysis". Ph. J. Tedeschi and A. Zaenen (ed.). pp. 13-29.
- Binnick, R. I. 1991. *Time and the Verb: A Guide to Tense and Aspect*. New York : Oxford University Press.
- Capell, A. and H.E. Hinch. 1970. *Maung Grammar*. Mouton Gruyeter.
- Carlson, G. N. 1989. "On the Semantic Composition of English Generic Sentences". Chierchia, G., B. H. Partee and R. Turner (eds.). *Properties, Types and Meaning. Volume II: Semantic Issues*. Dordrecht, Boston, London: Kluwer Academic Publishers. pp. 167-192.
- Carlson, G. N. and F. J. Pelletier. 1995. *The Generic Book*. Chicago: The University of Chicago Press.
- Comrie, B. 1976. *Aspect. An Introduction to the Study of Verbal Aspect and Related Problems*. Cambridge: Cambridge University Press.
- Comrie, B. 1985. *Tense*. Cambridge: Cambridge University Press.
- Dahl, O. 1975. "On Generics." Keenan, E. (ed.). *Formal Semantics of Natural Language*. Cambridge: Cambridge University Press.
- Dahl, O. 1985. *Tense and Aspect Systems*. London - New York: Basil Blackwell.
- Dahl, O. 1995. "The Marking of the Episodic/Generic Distinction in Tense-Aspect Systems." Carlson, G. N. and F. J. Pelletier (eds.).
- Deibler, E. W. 1976. *Semantic Relationships of Gahuka Verbs*, SIL Norman #48.
- Depraetere, I. 1995. "On the necessity of distinguishing between (un)boundedness and (a)telicity". *Linguistics and Philosophy* 18, 1-19.
- Dowty, D. R. 1972. *Studies in the Logic of Verb Aspect and Time Reference in English*. Doctoral Dissertation, University of Texas at Austin.
- Dowty, D. R. 1979. *Word Meaning and Montague Grammar. The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ*. Dordrecht: Reidel.
- Einandi, P. 1976. *A Grammar of Biloxi*. Garland.
- Elimelech, B. 1978. *Tonal Grammar of Etsako*. UC #87.
- Farkas, D. F. and Y. Sugioka. 1983. "Restrictive If/When Clauses". *Linguistics and Philosophy*, 6, 225-258.
- Filip, H. 1993. *Aspect, Situation Types and Nominal Reference*. Ph.D. Thesis, University of California at Berkeley.

- Filip, H. 1994. "Quantificational Morphology." Sergey Avrutin, Steven Franks and Ljiljana Progovac (eds.). *Formal Approaches to Slavic Linguistics, Volume II. The MIT Meeting 1993*. Ann Arbor Michigan Slavic Publications. pp. 144-177.
- Franklin, K. J. 1964. "Kewa Verb Morphology." *Verb Studies in Five New Guinea Languages*. SIL #10.
- Geytenbeck, B. and H. 1971. *Gidabal Grammar and Dictionary* (Austr.) Australian Aboriginal Studies #43, Australian Institute of Aboriginal studies, Canberra.
- Healey, P. M. 1965. "Telefol Verb Phrases", *New Guinean Ling.* #3. Healy, ANU.
- Hinrichs, E. 1985. *A Compositional Semantics for Aktionsarten and NP Reference in English*. Ph.D. Thesis, Ohio State University.
- Hyman, L. and D.J. Maguji 1970. *Essentials of Gwari Grammar*, University of Ibadan, Institute of African Studies, Occ. Publ. #27.
- Kamp, H. and C. Rohrer. 1983. Tense in texts. R. Bäuerle, C. Schwarze, and A. von Stechow (eds.), *Meaning, use and interpretation of language*, pp. 250-269. Berlin: Mouton de Gruyter.
- Kachru, Y. 1980. *Aspects of Hindi Grammar*. New Delhi: Manohar Publications.
- Kenny, A. 1963. *Action, Emotion and Will*. London: Routledge and K. Paul; New York: Humanities Press [1963]. Series title: *Studies in philosophical psychology*.
- Krifka, M. 1986. *Nominalreferenz und Zeitkonstitution. Zur Semantik von Massentermen, Individualtermen, Aspektklassen*. Doctoral Thesis, The University of Munich, Germany.
- Krifka, M. 1992. "Thematic Relations as Links between Nominal Reference and Temporal Constitution." Sag, I. A. and A. Szabolsci (eds.), *Lexical Matters*, pp. 29-53.
- Krifka, M., Pelletier, J., Carlson, G., ter Meulen, A., Link, G., and G. Chierchia. 1995. "Introduction". Carlson, G.N. and J. F. Pelletier (eds.). *The Generic Book*. Chicago: The University of Chicago Press.
- Kuççera, H. 1981. "Aspect, Markedness, and t_0 ." Tedeschi, Ph. L. and A. Zaenen. (eds.). *Syntax and Semantics 14. Tense and Aspect*. New York: Academic Press, pp. 177-189.
- Loving, R. and H. McKaughan. 1964. "Awa Verbs, Parts I and II". *Verb Studies in Five New Guinea Languages*. SIL #10.
- Meier, P. and I. Meier and J. Bendon-Samuel. 1975. *A Grammar of Izi*, SIL Norman.
- Matteson, E. 1965. *The Piro (Arawakan) Language*, UC #42,
- Moshinsky, J. 1974. *A Grammar of Southeast Pomo*, UC #72.
- Oates, W. and L. Oates. 1966. *Kapau Pedagogical Grammar*. Pacific Linguistics Series C #10 Australian National U. Canberra.
- Parks, D. 1976. *A Grammar of Pawnee*, Garland.

- Parsons, T. 1990. *Events in the Semantics of English: A Study in Subatomic Semantics*. Cambridge, Massachusetts and London, England: The MIT Press.
- Petr, J. 1986. *Mluvnice čečstiny*. Praha: Academia.
- Phillips, D. J. 1976. *Wahgi Phonology and Morphology*. Pacific Linguistics Series B # 36. Australian National University.
- Polomé E. 1967. *Swahili Language Handbook*. Center for Applied Linguistics.
- Rassudova, O. P. 1977. "Aspectual Meaning and Aspectual Context in the Teaching of Russian Verbal Aspect". In: Brecht, R. D. and D. E. Davidson (Eds.) *Soviet-American Russian Language Contributions*. Urbana, Ill.: G & G Press. pp. 139-144.
- Redden, J. E. 1979. *Descriptive Grammar of Ewondo*. Occasional Papers in Linguistics #4. Carbondale: Southern Illinois University.
- Ryle, G. 1949. *The Concept of Mind*. London: Hutchinson.
- Scott, G. 1973. "Fore Final Verbs", *Papers N. G. Linguistics* #8. Voorhoeve.
- Smith, C. S. 1991. *The Parameter of Aspect*. Dordrecht: Kluwer Academic Publishers.
- Smith, C. S. 1995. "The relation between aspectual viewpoint and situation type: Aspectual systems in universal grammar and in languages of the world." ms.
- Smith, N.V. 1969. "The Nupe Verb", *African Language Studies* X. 90-160.
- Sneddon, J. N. 1975. *Tondano Phonology and Grammar*, Australian National University, Pacific Linguistics Series B #38.
- Thomas, E. 1978. *Grammar Description of the Engenni Language*, SIL, VT-Arlington.
- Tucker, A.N. and M.A. Bryan. 1966. *Linguistic Analyses: The Non-Bantu Languages of Northeastern Africa*, Oxford University.
- Vendler, Z. 1957/67. "Verbs and Times". *Linguistics in Philosophy*. Ithaca, New Cornell University Press. pp. 97-121.
- Vlach, F. 1981. "The Semantics of the Progressive". Ph. J. Tedeschi and A. Zaenen (eds.), pp. 271-291.