

THE GREENLANDIC VERBAL SUFFIX -ut-:  
 INTERACTIONS OF LINGUISTIC FORM AND GRAMMATICAL FUNCTION<sup>1</sup>

Anthony C. Woodbury  
 University of California, Berkeley

1. The Greenlandic Eskimo transitive verbal suffix -ut- generally marks a change in the semantic role relation which the absolutive case noun phrase bears to the verb in a clause. It is related etymologically to the instrumental nominalizer -ut-, 'that with which one does X'. Samuel Kleinschmidt, in his classic grammar (Kleinschmidt, 1851) paraphrased its basic meaning as "er thut so an ihm, übt die Handlung an ihm aus, oder wendet sie auf ihn an." Related to this basic meaning were: "...um desswillen, für ihn, zu seinem nutzen; auch: mit ihm" (p. 159).<sup>2,3</sup> Kleinschmidt (p. 160) cites pairs such as

- |   |   |
|---|---|
| 1 a. <u>kamag-pug</u><br>angry-INDICATIVE:3sg<br>'he is angry'        | b. <u>kamag-ut-paa</u> (>kamauppaa)<br>angry- -INDICATIVE:3sg,3sg<br>'he is angry at him' |
| 2 a. <u>aggirpug</u> , 'he comes'                                     | b. <u>aggiuppaa</u> , 'he comes with it, brings it with him'                              |
| 3 a. <u>piniarpug</u> , 'he tries to obtain sth. (INSTRUMENTAL)'      | b. <u>piniuppaa</u> , 'he tries to obtain sth. (INST) for him (ABSOLUTIVE)'               |
| 4 a. <u>akilirpaa</u> , 'he pays for it (ABS); he pays for him (ABS)' | b. <u>akiliuppaa</u> , 'he pays for him (ABS), on his behalf'                             |
| 5 a. <u>tuurpaa</u> , 'he thrusts at it (ABS) with sth. (INST)'       | b. <u>tuxxuppaa</u> , 'he presses it against sth. (ALLATIVE)'                             |

These examples fit within various parts of Kleinschmidt's definitions, although clearly their generality permits a degree of latitude from the meaning of one verbal stem to that of another: (1) and (2), though both illustrating the "basic meaning", differ in that -ut- in (1) (b) adds a goal for the verbal action expressed in (1) (a), whereas -ut- in (2) (b) adds an absolutive case noun phrase which undergoes the verbal action along with the subject. Examples (3-4) illustrate the second meaning given, a kind of benefactive, and example (5) illustrates the third, instrumental meaning. Corresponding to these different definitions are differences in the effect of -ut- on the case structure: (3) (a) and (5) (a) both permit noun phrases in the instrumental case, but in (5) (b), the instrumental case noun phrase shifts to the absolutive case, while in (3) (b) it remains in the instrumental. (4) (a), on the other hand, permits two readings, differing in that separate semantic roles occupy the absolutive case in each, without any formal marking of this in the verb. Finally, observe that in the cases of (4-5), -ut- is suffixed to a transitive rather than an intransitive stem, and that the ergative-case transitive subject remains the same in the (a) and the (b) forms.

Matters are obscured further since, as Kleinschmidt notes, -ut- often alters the meaning of the stem itself (in so far as this could ever be determined from a gloss). We may illustrate this with:

- 6 a. ajurpuq, 'he is no good, wicked; he cannot'      b. ajuuppaa, 'he cannot buy it (ABS); cannot get him (ABS) sth. (INST)'
- 7 a. uqarpuq, 'he says sth.'      b. uquappaa, 'he tells him what to do, exhorts him'

Even these do not controvert my statement that -ut- marks a change in the role of the noun phrase in the absolutive case, but there are exceptions to this too:

- 8 a. tiguvaa, 'he takes it' (ABS)'      b. tiguupaa, 'he takes it (ABS) along with sth. else (AL)'

From (8) (a) to (8) (b), the role occupying the absolutive case remains the same, and -ut- in (8) (b) merely opens up the possibility for an allative case noun phrase. Finally, Kleinschmidt points out that although -ut- is extremely widespread and common, there are many verb stems which cannot take -ut- at all:

- 9 a. ativaa, 'he puts it on'      b. \*atiupaa  
10 a. pisugpuq, 'he walks'      b. \*pisuupaa

To summarize, then, we have a morpheme which must once have been highly productive in the language, but which is now increasingly found in constructions that are lexically, morphologically, and syntactically petrified, and whose meanings are drifting away from any single one that it might have had. This paper will concern itself with finding some regularities and patterns in the occurrence of -ut-, in order that we may have a more unified account of the data sketched above, among others. I hope to show that this suffix serves to perform certain general functions in the grammar, and that the structural facts surrounding this form can only be explained with reference to these functions. I will conclude by touching briefly on problems concerning the interpretation of generalizations about linguistic forms which are less than completely productive, and the different levels at which they have validity for speakers.

2. We will do well to consider some aspects of Greenlandic verb stems before beginning our discussion of -ut-. Now, we may distinguish four stem types according to transitivity:

Exclusively-intransitive stems:

- 11 a. pi -qar -puq      b. \*piqarppaa  
thing-have-IND:3sg  
'he has something'
- 12 a. anivuuq, 'he is big'      b. \*anivaa  
13 a. sinigpuq, 'he sleeps'      b. \*sinigppaa

Exclusively-transitive stems:

- 14 a. \*takuvuuq<sup>4</sup>      b. takuvaa, 'he sees him'  
15 a. \*kunjurpuq      b. kunjurppaa, 'he strikes him on the head with his knuckles'

Agent-binding stems (absolutive case intrans. subject & ergative case trans. subject both code same semantic role):

- 16 a. tikippuq, 'he has come'      b. tikippaa, 'he has come to it'

- 17 a. unnirpuq, 'he says sth. about s.o. (INST)'  
 b. unnirpaa, 'he says sth. about him (ABS)'

Object-binding stems (absolute case intrans. subject & absolute case trans. object code same semantic role):

- 18 a. matuvuq, 'it is covered' b. matuvaa, 'he covered it'  
 19 a. sikagpuq, 'it is hard, brittle'  
 b. sikagpaa, 'he makes it hard'  
 20 a. irqurpuq, 'he has been hit'  
 b. irqurpaa, 'he hit him with sth. (INSTR)'  
 21 a. kukugpuq, 'it is set alight'  
 b. kukugpaa, 'he sets it on fire, burns him/it (accidentally)'

The basis for the first two groups, exclusively-intransitive stems (11-13) and exclusively-transitive stems (14-15), is clear. The third group, agent-binding stems (16-17), involves pairs of transitive and intransitive forms of the same stem, generally equivalent semantically, where an object is added to the agent-plus-stem intransitive form. In the final group, object-binding stems (18-21), the intransitive forms predicate states of non-active intransitive subjects, while the transitive forms contain a causative component, adding an agent which brings about the state predicated of the object. The degree of semantic equivalence of the forms varies: (20) (a) appears to imply directly that there is an intentional agency: thus the transitive form would be basic there. (19) (a) on the other hand need not imply any agency at all: there, the intransitive form should be basic. Between these, (21) (a) implies an agency but not intentionality. Thus, on the basis of meaning, we do not want to posit a uniform derivational direction for these related sets of forms, since the direction differs from instance to instance. We also cannot claim exact semantic equivalence for the pairs.

3. We may now profitably return to our discussion of -ut- by considering its uses according to this classification of stems. We will take up in this section the patternings of agent-binding stems, beginning with those of verbs of motion:

- 22 a. tikipuq, 'he has come'  
 b. tikipaa, 'he has come to it'  
 c. tikiupaa, 'he comes with it; brings it'  
 23 a. anlavuq, 'he is in motion, walks around'  
 b. anlavaa, 'he walks or wanders through it'  
 c. anlavaupaa, 'he walks about with it, carries it with him'  
 24 a. avalagpuq, 'he shoves off'  
 b. avalagpaa, 'he goes out on it (ice)'  
 c. avalaupaa, 'he shoves off with it, takes it with him to sea'

The semantic roles of the noun phrases occupying the absolute case in the transitive forms (22-24) (b) are expressible in the intransitive forms (22-24) (a) in the allative, the perlocative, and the locative cases, respectively. We may generalize by saying that each of these cases expresses a relationship of location, and we will call these cases (along with the ablative) the locational cases. Now, in Greenlandic, every adjunct of every verb may appear in the absolute case (under the right conditions), and it may appear in what I

call its inherent case, that is, that case from among the six non-absolute cases which codes its particular role exclusively. In fact, I would like to define the inventory of semantic roles in Greenlandic in terms of the non-absolute cases, rather than in terms of an a priori semantic schema. We may say that the roles which are expressed in the absolute case in (22-24) (b) are de-allative (goal), de-perlative (?), and de-locative (location), or more generally, that the three roles are all de-locational. The de-locational role corresponds in most details to L. Talmy's (1975) notion of ground (from the Gestaltist distinction, 'figure vs. ground'), a superordinate semantic role taxon subsuming such role categories as source and goal found in the case role schemata proposed by other scholars.<sup>5</sup> I will use this terminology to describe the relationship between the intransitive, the  $\emptyset$ -transitive, and the -ut-transitive forms of the stems of verbs of motion such as those in (22-24): first, however, we must define figure, the other main term in Talmy's system. Figure<sup>6</sup> is opposed to ground as that which (literally or metaphorically) undergoes motion with respect to a ground, that is, it is a kind of focus for the action of the verb. For our purposes, we use the term figure to refer to that role whose inherent case is the Greenlandic instrumental case, and in fact this corresponds quite closely to Talmy's general characterization and use of the term.

Now, we may note that among the stems of the verbs of motion (22-24), the intransitive subjects and transitive subjects are figures, with an additional optional dimension of instigation or agency. Thus, we may describe the intransitive forms (22-24) (a) as making overt reference to a figure (in the absolute case, and which may or may not also be an agent), and we may describe the  $\emptyset$ -transitive forms (22-24) (b) as making overt reference to a figure (optionally also an agent, in the ergative case) and a ground (in the absolute case). The -ut-forms, in (22-24) (c), while having the same optionally agentive figure signalled in the ergative case, have a kind of comitative role signalled in the absolute case, that is, a secondary figure undergoing motion along with the (primary) figure, which appears in the ergative case. We can represent these relations between the three sets of forms schematically as follows:

25	SCHEME	OVERT CASE-MARKINGS			
		erg	abs	locational	comitative <sup>7</sup>
	INTR.	---	[+agent, +fig]	(ground)	(2ndary fig)
	$\emptyset$ -TR.	[+agent, +fig]	ground	---	(2ndary fig)
	-ut-	[+agent, +fig]	2ndary fig	(ground)	---

We find that verbs of motion with exclusively-intransitive stems which can take -ut- may be considered subcases of (25), defective for the  $\emptyset$ -transitive form:

- 26 a. aggirpuq, 'he comes'  
 b. none  
 c. aggiuppaa, 'he comes with it, brings it'
- 27 a. autlarpug, 'he goes away'  
 b. none  
 c. autlauppaa, 'he goes away with it, takes it away'

Here, the intransitive forms (a) are related to the forms in -ut- (c) just as those in (22-24) (a) are to those in (22-24) (c). The

fact that verbs of motion with exclusively-intransitive stems work this way suggests that the intransitive and not the  $\emptyset$ -transitive form is the basic one for verbs of motion with agent-binding stems.

Now let us consider other agent-binding stems:

- 28 a. piniarpug, 'he hunts, tries to obtain sth. (INST)'    b. piniarpaa, 'he tries to obtain it (ABS)'    c. piniuppaa, 'he provides (for) him (ABS) with sth. (INST)'
- 29 a. aglirpug, 'he abstains for cultic reasons'    b. aglirpaa, 'he abstains from it (ABS)'    c. agliruppaa, 'he abstains from sth. (INST) for the sake of him (ABS)'
- 30 a. atuarpuq, 'he reads'    b. atuarpaa, 'he reads it'    c. atuauppaa, 'he reads to him'

The intransitive forms (28-30) (a) have an agent in the absolutive case. In the  $\emptyset$ -transitive forms (28-30) (b), a figure (ie, an ex-instrumental, as can be seen from the corresponding -ut-forms) appears in the absolutive case. The first two -ut-forms (28-29) (c) show a beneficiary role in the absolutive case, which corresponds to the second paraphrase that Kleinschmidt gives for -ut-. In (30) (c), the role occupying the absolutive case may specifically be a beneficiary, or it may be some other kind of ground. We may summarize this as follows:

31	SCHEME	OVERT CASE-MARKINGS			
		erg	abs	instrumental	locational
	INTR.	---	agent	(figure)	(benef. or ground)
	$\emptyset$ -TR.	agent	figure	---	(benef. or ground)
	-ut-	agent	benef. or ground	(figure)	---

There are three sets of verbs which follow parts of this pattern. The first consists of exclusively-intransitive stems with the agent role in the absolutive case, such as:

- 32 a. pisivug, 'he buys sth. (INST)'    b. none    c. pisiuppaa, 'he buys sth. (INST) from him (ABS)'
- 33 a. tunugpug, 'he turns his back on s.o. (AL)'    b. none    c. tunuppaa, 'he turns his back on him (ABS)'
- 34 a. kamagpuq, 'he is angry'    b. none    c. kamauppaa, 'he is angry at him (ABS)'
- 35 a. imirtarpug, 'he fetches water'    b. none    c. imirtauppaa, 'he fetches water for him'

In the -ut-forms here, beneficiaries (cf. (33) (c) and (35) (c)) as well as other grounds (cf. (32) (c) and (34) (c)) appear in the absolutive case. We may say that these stems follow the pattern in (31), but are defective for  $\emptyset$ -transitive forms.

The next group involves exclusively-transitive stems with the agent role in the ergative case, and the figure in the absolutive case (I have none but these examples, and they have the same meaning):

- 36 a. none    b. uparuarpaa, 'he points at it'    c. uparuuppaa, 'he points at sth. (INST) for him'
- 37 a. none    b. tikkuarpaa, 'he points at it'    c. tikkuuppaa, 'he points at sth. (INST) for him'

In these examples, -ut- clearly signals a beneficiary in the absolutive case.

The third set of verbs consists of agent-binding stems where the  $\emptyset$ -transitive construction signals that either one of two possible roles is in the absolutive case:

- 38 a. unnirsurpuq, 'he gives warning, makes sth. known'  
 b. unnirsurpaa, 'he promises him sth. (INST). promises it (ABS) to s.o. (AL)'  
 c. unnirsuuppaa, 'he gives him (ABS) information about sth. (INST)'
- 39 a. tusarpuq, 'he hears'  
 b. tusarpaa, 'he listens to him; he hears it, about it'  
 c. none

In (38), there is specialization in stem-meaning in the  $\emptyset$ -transitive (b)-form, and the stem in (39) cannot take -ut-. We may say that the  $\emptyset$ -transitive construction here has an additional meaning, where a ground occupies the absolutive case. Now, except for (36-37), which are marginal cases and may be explained by analogy to the dominant pattern of agent-binding stems, all of the verbs in accord with the patterns represented in (31) have exclusively-intransitive or agent-binding stems. Thus we may assume here too that the basic form for the agent-binding stems is the intransitive one.

Now let us examine a class of exclusively-intransitive stems which do not quite fit the patterns in either (25) or (31), which I call verbs of inundation:

- 40 a. qarssuavug, 'it flows over, inundates'  
 b. none  
 c. qarssuppaa, 'it flows over it, inundates it'
- 41 a. unnuarurpuq, 'night is falling'  
 b. none  
 c. unnuaruuppaa, 'night came upon him'
- 42 a. tinigpuq, 'it is low water, the tide ebbs'  
 b. none  
 c. tinuppaa, 'the water has fallen off it'

With these verbs a figure which is a force in nature is in the absolutive case in the intransitive forms (40-42) (a), and in the ergative case in the -ut- forms (40-42) (c). The -ut- forms have a ground in the absolutive case. This follows the pattern in (25) in that (i) the verbs involve a kind of motion and (ii) the intransitive and transitive subjects are figures (though not agents); it follows the pattern in (31) in that the -ut- form signals a ground in the absolutive case, whereas in (37) it is the  $\emptyset$ -transitive form which signals a ground in the absolutive case.

Looking back on this section, we may note that the main difference between the intransitive, the  $\emptyset$ -transitive, and the -ut- forms is in terms of what role appears in the absolutive case. Indeed, our diagrams in (25) and (31) would be just as informative if they told us only which role appears in the absolutive case in each of the three forms: from that information we could infer the case that the other roles would appear in by looking for their inherent cases.

Thus, we find that  $\emptyset$ -transitive forms as well as -ut- forms have the same overall function in the grammar, that is, signalling a change of role in the absolutive case. Now, if this is to be taken seriously, we must find out what it means in terms of the gram-

mar for a particular role to be in the absolutive case. It happens that the Greenlandic absolutive, and to a lesser extent also the ergative case, has a "topic" status, over and above its role-coding properties. Noun phrases in the absolutive case are the only ones fully "accessible" to relativization, participle formation, and clefting, with the ergative case running second, and the oblique cases last. Further, only noun phrases in the absolutive or ergative cases are definite: all others are understood as indefinite. Moreover, Greenlandic abounds in voice changing constructions for signalling a change of semantic role in the absolutive case, so that noun phrases of any role may become definite, and accessible to relativization, clefting, and participle formation. We will call this function the accessing function, and we may now understand  $\emptyset$ -transitives and -ut- as figuring among the many constructions which carry out this vital function in the grammar.

How, in specific detail, do  $\emptyset$ -transitive and -ut- constructions perform the accessing function? Can we predict which role will be signalled in the absolutive case by which construction, under a given set of circumstances? We will consider this, taking the intransitive construction as basic (as justified earlier). With agent-binding verbs of the class represented by (31),  $\emptyset$ -transitive constructions signal that a figure has replaced an agent in the absolutive case, while -ut- constructions there signal that a beneficiary or a ground has replaced an agent in the absolutive case. Among verbs of motion, represented in (25),  $\emptyset$ -transitive constructions signal that a secondary figure, or comitative, has replaced an optionally agentive figure. Finally, with verbs of inundation (40-42),  $\emptyset$ -transitive forms do not occur, and -ut- constructions signal that a ground has replaced a non-agentive figure. Thus we have partial overlapping of effect: it is the exclusive province of  $\emptyset$ -transitive constructions to signal that a figure has replaced an agent; both  $\emptyset$ -transitive and -ut- constructions can signal that a ground has replaced a figure; and -ut- constructions alone can signal that a secondary figure has replaced an agent, or that a beneficiary has replaced an agent (or a figure, if we include (36-37)). Now with our notions of the basicness of the  $\emptyset$ -marked forms (transitive and intransitive) over the -ut-marked transitive construction, as well as the basicness of the intransitive construction over the  $\emptyset$ -transitive construction, we may refer to a hierarchy of constructions, as follows:

#### 43 Hierarchy of constructions:

INTRANSITIVE >  $\emptyset$ -TRANSITIVE > -ut- TRANSITIVE

In terms of this hierarchy, we can develop a hierarchy of priority for roles to be expressed in the absolutive case. Looking first at (31), we find the following sequence of roles in the absolutive case:

44 AGENT > FIGURE > { GROUND  
BENEFICIARY }

In (25), we get this sequence:

45 ± AGENT/+FIGURE > GROUND > SECONDARY FIGURE (COMITATIVE)

And, with verbs of inundation we get:

46 FIGURE > GROUND

By collapsing (44-46), we arrive at the following general hierarchy of roles:

47 Hierarchy of semantic roles for expression in the absolutive case:  
AGENT > FIGURE > {GROUND > SECONDARY FIGURE (COMITATIVE)}  
BENEFICIARY

The two hierarchies, (43) and (47), may in turn be used to describe the distribution of grammatical functions of *-ut-* (as well as that of the  $\emptyset$ -transitive construction, where it occurs) in terms of the role structure of the basic form of a verb class by reversing the process by which we derived the hierarchies. This will be worked out in detail in §5 below.

4. We must now consider the patterning of object-binding stems and exclusively-transitive stems in intransitive,  $\emptyset$ -transitive, and *-ut-* constructions. Observe these triplets:

48 a. *agšagpuq*, 'it is dug, turned over'  
b. *agšagpaa*, 'he digs (in) it, turns it over'  
c. *agšauppaa*, 'he buries it'

49 a. *immirpuq*, 'it is filled'  
b. *immirpaa*, 'he fills it, loads it with sth. (INST)'  
c. *immiuppaa*, 'he puts it (ABS) into sth. (AL)'

50 a. *irqurpuq*, 'he has been hit'  
b. *irqurpaa*, 'he hit him (ABS) with sth. (INST)'  
c. *irquuppaa*, 'he hit s.o. with it (ABS)'

We may summarize the relationships found here as follows:

	<u>OVERT CASE-MARKINGS</u>				
<u>51</u> <u>SCHEME</u>	<u>erg</u>	<u>abs</u>	<u>instrumental</u>	<u>allative</u>	
<u>INTR.</u>	---	ground	(figure)	---	
$\emptyset$ -TR.	agent	ground	(figure)	---	
<u>-ut-</u>	agent	figure	---	(ground)	

Let us begin our discussion of object-binding verbs by determining what the direction of derivation is between the intransitive forms (48-50) (a) and the  $\emptyset$ -transitive forms (b). As mentioned before, we can argue on purely semantic grounds for either direction. Thus, for verb stems like *agšag-* in (48) and *immir-* in (49) (cf. also the verb stems in (18-19)), the intransitive form is basic, since it implies no agency; the  $\emptyset$ -transitive form adds the semantic dimension of agency, and can be said to perform the accessing function for the agent role by bringing it into the ergative case (the only "topic" case that agents may appear in when the verb is transitive). This corroborates our hierarchies in (43) and (47): that is, given an intransitive basic form with a ground in the absolutive case, such as (48)-49) (a), the  $\emptyset$ -transitive form (next on the construction hierarchy (43)) signals an agent (at the top of the role hierarchy (47)) in the ergative case.



those patterns we find only object-binding and exclusively-transitive stems, never exclusively-intransitive stems.

A second argument we can make involves the derivation of the -ut- forms. An inspection of (48-50) shows it quite implausible that the -ut- forms (48-50) (c) are derived from the corresponding intransitive forms (48-50) (a): if we maintained this, we would have to say that -ut- signals that in the absolutive case a ground is replaced by a figure, and that in addition, an ergative case agent is added. For (52-55), however, the  $\emptyset$ -transitive form (52-55) (b) must in any case be taken as the beginning point, since there is no corresponding intransitive form. All of these problems disappear when the  $\emptyset$ -transitive form is taken as basic, and the -ut- form is seen in all occurrences as signalling that a ground in the absolutive case has been replaced by a figure.

We have allowed structural facts to choose between analyses. This has consequences for our account of -ut-, and of the accessing function in general. If the structural processes had corresponded to the analysis where the intransitive form is taken to be basic, it would have been methodologically sound to consider the entire pattern of intransitive vs.  $\emptyset$ -transitive vs. -ut- among object-binding verbs in terms of the hierarchies in (43) and (47), since the same function would be represented structurally throughout. As we saw above, the intransitive-form-as-basic-form analysis even corroborates the hierarchies. But in the relation between  $\emptyset$ -transitive and intransitive, we have seen that the syntactic pattern corresponds to agent suppression, a different function from the accessing function, and that that pattern is generalized to all cases, regardless of the function in particular contexts. In order that our functionally based description not be called upon to account for structural phenomena corresponding to alien functions, we are forced to consider only  $\emptyset$ -transitive and -ut- forms independent of intransitive forms, despite the fact that the accessing function, the function under study, is carried out by the subcases that the language ignores formally, and despite the fact that those subcases confirm our account (as well they should). In practical terms, this means that for object-binding verb stems, 'INTRANSITIVE' is removed from the construction hierarchy, since it does not formally mark the accessing function for that class.

We now turn to two patterns, each involving both object-binding and exclusively-transitive stems. Consider these forms:

- |  |   |   |
|--|---|---|
| 56 a. <u>napivug</u> , 'it<br>is broken'         | b. <u>napivaa</u> , 'he<br>breaks it'                               | c. <u>nappuppaa</u> , 'he breaks it<br>together with sth. else'                 |
| 57 a. <u>tipivug</u> , 'it<br>drifted<br>ashore' | b. <u>tipivaa</u> , 'it (the<br>current, etc.)<br>drifts it ashore' | c. <u>tipuppaa</u> , 'the current<br>sets it ashore together<br>with sth. else' |
| 58 a. none                                       | b. <u>qilirpaa</u> , 'he ties it up<br>with a knot'                 | c. <u>qiliuppaa</u> , 'he ties it<br>to sth. (AL)'                              |
| 59 a. none                                       | b. <u>tiguvaa</u> , 'he takes it'                                   | c. <u>tiguuppaa</u> , 'he takes it<br>along with sth. else (AL)'                |

It is not clear to me whether the absolutive case noun phrases in the  $\emptyset$ -transitive forms (55-59) (b) are figures or grounds-- I have found

no morphological basis for arguing one way or the other. But whatever role that is, note that a kind of comitative role, that is, a kind of secondary figure or secondary ground, is introduced into the configuration. In the -ut- forms we cannot tell from the data at hand whether the primary version or the secondary version of that role is appearing in the absolutive case, because they bear the same semantic relation to the verb. In any case, the leftover bearer of that role appears in the allative case in (58-59) (c). Now, note that in terms of our hierarchy, the -ut- forms in (56-59) (c) should signal that occupying the absolutive case is the highest ranking role on the role hierarchy (47) which is not yet represented, that is, either a figure or a ground, depending on what the role of the absolutive case noun phrases are in the  $\emptyset$ -transitive forms. It should not signal a comitative role (i.e. a secondary figure or secondary ground), which clearly would be outranked on the role hierarchy. Signalling a comitative is a function which we found in §3 to be the exclusive province of -ut-. I would like to explain the dissonance of the patterning of (56-59) with the role hierarchy by claiming that it is an inherent function of -ut- to signal a comitative meaning. In these cases, the function of -ut- is not assigned according to the hierarchy. That is, the function of -ut- may either be assigned by the hierarchy, or it may revert to one of -ut-'s inherent functions, and this variability, moreover, is not always predictable.

It happens that this same type of explanation will help in understanding another group of forms which disobey the hierarchy:

- |  |   |  |
|--|---|--|
| 60 a. <u>aligturpuq</u> ,<br>'it is torn'        | b. <u>aligturpaa</u> , 'he<br>tears it to                     | c. <u>aligtuuppaa</u> , 'he <sub>i</sub> happens to<br>tear his <sub>i</sub> clothes, is responsi-<br>pieces' ble for him <sub>i</sub> , going around in tatters |
| 61 a. <u>nargigpuq</u> ,<br>'he/it re-<br>vives' | b. <u>nargigpaa</u> , 'he<br>corrects it,<br>corroborates it' | c. <u>narqiuppaa</u> , 'he corroborates,<br>gives evidence, for him'   |
| 62 a. none                                       | b. <u>akilirpaa</u> , 'he<br>pays him, pays<br>for it'        | c. <u>akiliuppaa</u> , 'he pays on his<br>behalf, for him'   |

The -ut- forms (60-62) (c) have beneficiaries in the absolutive case, while the  $\emptyset$ -transitive forms have grounds there. The role hierarchy (47) is violated because figures should outrank beneficiaries, and therefore figures should appear in the absolutive case in these -ut- forms, as indeed they do among the verbs conforming to (51). Now, as we saw in §3, only -ut- can signal that a beneficiary role is in the absolutive case. I claim that this too is an inherent function of -ut-, and in that way reconcile this violation of the hierarchy.

In this section, then, we have found three classes of object-binding and transitive stems with similar patterning, and have used this, along with other facts, to argue that the  $\emptyset$ -transitive form is derivationally basic. Because of this, the intransitive form of object-binding stems was seen not to contribute to the accessing function from a structural point of view. Lastly, we developed a notion of inherent (sub-) function to account for cases where -ut- does not signal in the absolutive case the role which the hierarchy

in (47) would lead us to expect that it would.

5. We may now summarize the patterns we have found holding between intransitive,  $\emptyset$ -transitive, and -ut- constructions for different classes of Greenlandic verb stems. We will do this by stating a general rule for predicting this patterning, making use of the hierarchy of constructions (43) and the hierarchy of semantic roles, approximated in (47).

Our hierarchy of semantic roles for expression in the absolutive case, a priority hierarchy for the accessing function, must be altered in light of our contention that -ut- has as its inherent function the signalling of comitative and beneficiary roles in the absolutive case. These roles may be considered as a residual grouping at the bottom of the hierarchy, and it becomes a question with each set of similarly-patterning verb stems as to whether it will revert to its inherent function by signalling a role from this residual group. The revised hierarchy is as follows:

63 Revised hierarchy of semantic roles for expression in the absolutive case:

AGENT > FIGURE > GROUND || > RESIDUAL ROLES

Where the 'RESIDUAL ROLES' are COMITATIVE and BENEFACTIVE, and are specific to -ut- constructions.

The data discussed in this paper are arranged in tabular form on the next page according to construction (columns), specific patterns (rows), and classes of patterns, these last defined in terms of what role occupies the absolutive case in the basic form, and justified as belonging together in §§3-4. To the right of each pattern are listed the appropriate examples. We may describe the data summarized in the table with this meta-rule, ranging over the set of rules which would describe the patterns for specific classes:

64 Given the basic form for a class of verbs, the highest-ranking remaining element on the role hierarchy (63) may be expressed in the absolutive case by means of the highest ranking remaining element on the construction hierarchy (43).

The first class in the table, general agent-binding/exclusively intransitive stems (cf. summary in (31)) begins with an agent in the absolutive case in the basic form, and should, according to the rule, signal a figure in the absolutive case with the  $\emptyset$ -transitive construction (exception: pattern (e) may signal figure or ground), and absolutive ground with the -ut- construction (exceptions: in patterns (b), (d), and (f) the -ut- construction takes on its inherent function, and signals a beneficiary in the absolutive case; the same occurs for (e) by default, since nothing but the residual roles are left over on the role hierarchy).

The second class in the table, verbs of motion, begins with an intransitive basic form with an optionally agentive figure in the absolutive case, and should signal a ground in the absolutive case with the  $\emptyset$ -transitive construction, and, by default, a residual role in the absolutive case with the -ut- construction (here the residual

<u>INTR.</u>	<u>Ø-TR.</u>	<u>-ut-</u>	<u>Examples</u>
<u>General agent-binding/exclusively-intransitive class</u> (INTR. basic form)			
a. ag	---	gr	32, 34
b. ag	---	benef	33, 35
*c. ag	fig	gr	30
d. ag	fig	benef	28, 29
*e. ag	fig/gr	benef?/gr?	38
*f. ---	fig	benef	36, 37
<u>Verbs of motion class</u> (INTR. basic form)			
g. ag-fig	---	2ndary fig (com)	26, 27
h. fig	---	2ndary fig (com)	26, 27
i. ag-fig	gr	2ndary fig (com)	22-24
j. fig	gr	2ndary fig (com)	22-24
<u>Verbs of inundation class</u> (INTR. basic form)			
k. fig	---	gr	40-42
<u>General object-binding/exclusively-transitive class</u> (Ø-TR. basic form)			
l. gr	gr	fig	48-50
m. ---	gr	fig	52-55
n. gr	gr (or fig?)	2ndary ?fig/?gr (com)	56, 57
o. ---	gr (or fig?)	2ndary ?fig/?gr (com)	58, 59
*p. gr	gr	benef	60, 61
*q. ---	gr/fig	benef	62

\*Marginal pattern-- few examples found.

TABLE SUMMARIZING ROLES OCCURRING IN THE ABSOLUTIVE CASE  
BY CONSTRUCTION TYPE AND BY VERB CLASS

role is a secondary figure (comitative)).

The third class in the table, verbs of inundation, begins with an intransitive basic form with a figure in the absolutive case, and it signals the ground in the absolutive case with the -ut- construction instead of the Ø-transitive construction, which is next on the hierarchy.

The last class in the table, general object-binding/exclusively-transitive stems, begins with a transitive basic form with a ground in the absolutive case, and should signal a figure in the absolutive case with the -ut- construction (exceptions: in patterns (m) and (p), and (n) and (q), -ut- reverts to its inherent function, signalling a comitative in the absolutive case with the first two of these, and a beneficiary in the absolutive case with the second two).

Among the instances where the -ut- construction reverts to its inherent function by signalling a beneficiary or a comitative role in the absolutive case, we may yet salvage some regular patterns. First, note that in the first class in the table, the -ut- construction signals a beneficiary but never a comitative in the absolutive case, and this is done instead of signalling a ground, as the rule in (64) would prescribe. But beneficiaries and grounds have much in common, and for us the most important of these is that the inherent case of beneficiaries is the allative, making it a kind of de locational role, that is, a kind of ground. Thus the semantic path

from the inherent function of the -ut- form and the rule-assigned function is short. Next, note that in the second class in the table, where -ut- constructions take on their inherent meaning by default, a secondary figure (comitative) is always signalled in the absolutive case. Finally, note that wherever the -ut- construction signals a comitative absolutive, the corresponding  $\emptyset$ -transitive construction, if there is one, will signal a ground in the absolutive case.

6. The description and generalization I have provided here for the morpheme -ut- is not tidy: it has a rather peculiar and complex form, and there are a number of exceptions to it. Nevertheless it seems to me to be an improvement over Kleinschmidt's account in that (i) it links the meanings of -ut- with "role categories" defined in terms of the case system of the language, (ii) it states the conditions, where possible, for determining which of the three meanings given by Kleinschmidt will be displayed by a particular instance of -ut-, and (iii) it ascribes an overall semantico-grammatical function to -ut-, the accessing function, which is well motivated in terms of the rest of the system. This third part is most important, since it argues that for some linguistic forms, regularity is found only by starting with a particular overall function in the grammar, and then seeing how the form under study participates, in conjunction with other forms, in carrying out that function. This is quite different from the standard approach, which admits of multiple functions for a given form, and multiple forms carrying out a given function, but which does not consider as crucial to correct description the interactive relationships between forms which are wholly or partially isofunctional.

I would like now to elaborate on the kinds of generalizations I have made in this paper, in the interest of being explicit about methodology, and because these distinctions are important, as I will show, to discussions of linguistic conventions and language psychology. Specifically, generalizations differ in terms of the kinds of units they generalize over. Now, raw linguistic data consists of actual utterances produced in actual situations by speakers. A level of generalization ranging over this is that of linguistic forms taken as entities, or in Saussurian terms, elements of langue: thus when I refer to 'the sentence, the farmer killed the duckling', I am not in fact referring to a piece of raw linguistic data, but, more precisely, I am referring to a generalization about all of the instances in which tokens of this sentence have occurred or may occur as a part of the linguistic behavior of a speaker. The Greenlandic sentence examples cited in this paper are, then, generalizations over raw data. We encounter a higher level of generalization, a kind of meta-generalization, if we consider the patterning of categories in a set of linguistic forms at the level of our sentence examples. Such a level is encountered, for example, in "structural descriptions" in transformational grammar, where whole grammatical categories are the elements referred to; similarly, the individual rows in our table, each an abbreviation for a chart such as (25), (31), or (51), are generalized patterns taking role categories as primary elements.

A still higher level of generalization, ranging over individual category patterns such as those in the table, is illustrated by the four classes found there. These classes were argued for in terms of similarities between full and defective individual patterns, and in terms of the possibility of collapsing the individual patterns into an overall class pattern. The validity of these classes as worthwhile entities is enhanced by the semantic correlations which it was possible to make with them: that is, these classes coincide with semantic classes, such as verbs of motion. Note that our rule (64) provides us with results holding good for classes of verbs, since the output of the rule is associations of functions and constructions for entire classes. We may therefore say that the rule represents a level of generalization with classes as units. To illustrate this, we can point to the fact that the rule does not always hold good at lower levels, such as the level of individual patternings of categories, or at the level of particular forms. Thus pattern (a) in the table, taken alone, violates the rule, since, first, it has no transitive construction, while it does have an -ut- construction (thus violating (43)), and second, the next construction that is available, the -ut- construction, signals not a figure, the next available role according to (63), but a ground.

Before considering the meanings of lower and higher levels of linguistic generalization, let me caution that I do not intend to set up universal concrete levels: clearly in my analysis of -ut-, I chose certain functional principles for making generalizations, and they in turn determined the nature of the units at the next level of generalization, which itself would have principles of organization. I am, then, merely pointing out that some generalizations refer to raw data, others refer to generalizations about raw data, still others refer to generalizations about generalizations about raw data, and so on, and I hope to show that they are not all the same thing, as is often assumed when levels are not kept straight.

Our higher levels of generalization corresponded to different uses of the term 'function' with respect to -ut-. At the level of patterning of categories and the level of classes, we spoke of the function of -ut- as signalling various particular roles in the absolute case. At the level of our rule (64), we used the term 'function' to refer to the overall effect of -ut- and  $\emptyset$ -transitive constructions in the grammar, which we called the accessing function.

We might guess that conflict would arise if from the point of view of one level of generalization, a linguistic form served one function, but from the point of view of another level, the same form could be analysed as serving a different function. Rather than prescribing what to do in such cases wherever they arise, I will cite a case of this kind from this paper, and discuss my solution there. Recall in §4 that we had trouble deciding whether to take the intransitive or the transitive form as basic for object-binding stems. Functionally, some of the pairs of intransitive and  $\emptyset$ -transitive forms suggested the accessing function, and others a role-suppressing function. There were two possible solutions, both of which "worked", but because there were no formal markers of this dis-

inction at the level of patterning of categories, there was no basis for decision between the solutions. We then considered object-binding stems in conjunction with exclusively-transitive stems, and, finding many parallels between the two patterns, we constructed a class. At the class level, it was clear that the  $\emptyset$ -transitive form had to be considered basic. Two assumptions implicit here are that (i) a lower level description should be tried first, and that (ii) the morphology of the language, rather than a priori semantic considerations, should determine what semantic and functional categories will be recognized. I repeat that I have offered a solution only to one problem of this kind: any general methodology must critically examine assumptions such as these, and test them and other assumptions in a study of many such problems, and their solutions.

The first of the assumptions mentioned above is in all cases necessary, since higher level generalizations are, by definition, made about generalizations at a lower level. But there is a linguistic justification for this assumption which is brought out if we consider a general correlation that seems to exist with hierarchies of levels. Note that with a process which is productive in the usual sense, generalization is possible without having to resort to a higher level. Thus with passivization in English, for example, the relevant generalization can be found at the level of patterning of grammatical relation categories. We may tie this in with the fact that -ut- must have been very productive at some time in the past. The effect of higher level generalization here was to draw together the remnants of this past unity, which over time had drifted apart, and to reconstitute their productive patterns.<sup>11</sup> If generalizations from lower to higher levels reflect in some ways recent and less recent productivity, then we can understand the logic of the assumption that it is correct to begin with the lowest level and work up until we have a reasonable descriptive generalization. That is, since finding linguistic regularities is our goal, we tend to content ourselves with decaying productive regularities if there are none in operation at present.

How are generalizations at different levels relevant to speakers and the ways in which they consciously and unconsciously manipulate and use language? The speaker certainly is conscious of forms (ie. words, sentences, etc.) as generalizations over raw linguistic data: although he is not always accurate in describing his own use of them, he is usually able to discuss contexts where they are appropriate.<sup>12</sup> With generalizations over forms, where categories in patterns are the basic units, it is not at all clear that speakers are directly aware of the regularities that are present, although they may certainly be said to manipulate them productively, and can cite different forms that display the same pattern.

When we reach higher levels of generalization, it may not be reasonable to expect speakers to be conscious of the regularities, except in fragmentary ways. For example, and this is conjecture on my part, a speaker may consider the derivation of (24) (c) from (24) (a) above as parallel to the derivation of (26) (c) from (26) (a), but would simply "know" that (26) (a) has no corresponding  $\emptyset$ -

transitive form. On the other hand the relation of all of these to (28) (a) and (c) would be considerably more hazy. We must even ask here whether these regularities among the units of higher level generalization are manipulated at all by the speaker as he uses language, or whether he has simply learned by rote a set of forms which happen to display these regularities when subjected to the proper analysis. A realization that is linked to this is that, just because a speaker is aware of a regularity, we still do not know whether he makes use of it when he speaks. For example, it is unlikely that English speakers who know Latin, each time they utter English impress and inhibit, treat them as bimorphemic, containing prefixes which are allomorphs of each other. We cannot know the answers to any of these questions before we are able to devise empirical methods of finding them out.

The overall outline we have been developing of the different significances of linguistic generalizations is very important: as linguists, we tend to look for generalizations wherever we can find them. But we must use extreme care in making inferences from these generalizations, unless we are to confuse and misinterpret various admixtures of that which speakers manipulate in speaking, and that which constitutes the inherited conventions of the speech community.

#### FOOTNOTES

1. This paper constitutes a substantial revision of Woodbury (1975, 81.2.3). An intermediate version was delivered orally to the Group in American Indian Linguistics, Berkeley, in May, 1976. The examples are cited from Schultz-Lorentzen's (1927) Greenlandic-English dictionary, except where otherwise indicated, and glosses are quoted directly. This work was supported in part by a Training Grant from the National Institutes of Health, administered by the Institute of Human Learning, University of California at Berkeley.

I am very grateful to Orin Gensler, Jerrold Sadock, and Michael Silverstein for their penetrating and helpful comments on various versions of this work.

2. "He does thus to him, carries the action out toward him, or directs it toward him." "...on his behalf, for him, to his use or benefit; also, with him."
3. This general view has not substantially changed in the standard literature on Greenlandic since Kleinschmidt's time: see Thalbitzer (1911:1065), Schultz-Lorentzen (1927:301-302 and 1945:87), Bergsland (1955:108-109).
4. Some transitive verbs of all three stem types take a reflexive meaning when intransitivized, including taku-: takuvuq, 'he sees himself'; kukugpuq, 'he burns himself' (cf. (21) (a)); unnirpuq, 'he says sth. about himself' (cf. (17) (a)). Where ambiguities arise, the reflexive noun root inmi- appears as an adjunct, with appropriate case-marking. In the text, I have placed an asterisk before those intransitive forms which only have reflexive meanings, in order to simplify the exposition.
5. Cf. Gruber (1965), Fillmore (1968, 1977) and references there. These treatments, as well as Talmy's and my own, depart from Whorf's (1956) classical application of Gestaltist distinctions to semantic

description. Whorf characterizes each morpheme in terms of the semantic role which is felt to be most central to the meaning of the morpheme if it were translated into propositional form: for example, under "special stems of vague figure" he lists pa'- 'going, moving thither', laakeet- 'lightly, easily, quickly', and laašiwē- 'down, off from, above' (p. 167). Also, our treatment in this paper differs from all of the above because our role characterizations are based on inherent case categories defined in terms of morphological case-marking, and not of a priori applications of a terminological system. 6. Cf. Gruber's theme and Fillmore's patient for corresponding concepts.

7. I have not been able to determine which oblique case this comitative role would appear in: thus, the column head 'comitative' in (25) should be taken only as a place-filler.

8. The only exception to this is the ergative case: while agents may be said to have the ergative case as their inherent case, sometimes other roles find their way there, as with (22-24) (b-c) and (40-42) (c), where figures appear in the ergative case. This fits with the general status of the ergative case as being in some ways a "topic" case, and in other ways an oblique case.

9. For detailed justification for these claims, consult my Master's essay (Woodbury, 1975).

10. There are other role-suppressing processes in Greenlandic, among them passivization and -nar- (impersonal agent) forms (cf. Woodbury, 1975). This establishes independently the existence of a role-suppressing function in the grammar of Greenlandic.

11. There is some similarity between this and the methodology of internal reconstruction. But there, phonetic, morphological, syntactic, and functional change are all considered, while here we maintain the traditional practice in synchronic linguistics of holding one or more of these constant, and seeking regularities. Thus in our analysis of -ut- here, we hold function constant, and of course assume that the earlier, productive \*-ut- also contributed to the accessing function.

12. See Silverstein (1976) for lucid discussion of problems concerning speakers' awareness of linguistic forms, and their meta-semantic and meta-pragmatic knowledge. Silverstein links degrees of awareness with, among other things, the distinction between semantico-referential function and speech-situation bound (and hence often cultural) function. In this paper we find that levels of function contributing ultimately to semantic meaning and the maintenance of reference in discourse are also linked to this issue.

#### REFERENCES

- Bergsland, K. 1955. A grammatical outline of the Eskimo language of West Greenland. University of Oslo Doctoral Dissertation. Micro-Editions of Inter-Documentation Co. AG, Zug, Switzerland.
- Fillmore, C. 1968. "The case for case." In E. Bach and R. Harms, edd. *Universals in linguistic theory*. Holt, Reinhart, Winston, New York.
- \_\_\_\_\_, 1977. "The case for case reopened." In P. Cole and J. Sack, edd. *Syntax and semantics*, vol. 8: *grammatical relations*,

- Academic Press, New York.
- Gruber, J. 1965. Studies in lexical relations. MIT Doctoral Dissertation. Mimeographed by University of Indiana Linguistics Club, Bloomington, IN.
- Kleinschmidt, S. 1851. Grammatik der Grönländischen Sprache. Georg Olms, Hildesheim, West Germany.
- Schultz-Lorentzen, C. W. 1927. Dictionary of the West Greenland Eskimo language. Meddelelser om Grønland, LXIX, Copenhagen.
- \_\_\_\_\_, 1945. A grammar of the West Greenland language. Meddelelser om Grønland, CXXIX, 3. Copenhagen.
- Silverstein, M. 1976. "Shifters, linguistic categories, and cultural description." In K. Basso and H. Selby, edd. Meaning in cultural anthropology, University of New Mexico Press, Albuquerque, NM.
- Talmy, L. 1975. "Semantics and syntax of motion." In J. Kimball, ed. Syntax and semantics, vol 4. Academic Press, New York.
- Thalbitzer, W. 1911. "Eskimo." In F. Boas, ed. Handbook of American Indian languages, part 1, Bulletin 40 of the Smithsonian Institution, Bureau of American Ethnology, Washington, D.C.
- Whorf, B.L. 1956. "Gestalt technique of stem composition in Shawnee." In J. Carroll, ed. Language, thought, and reality, selected writings of Benjamin Lee Whorf. MIT Press, Cambridge, MA.
- Woodbury, A. 1975. Ergativity of grammatical processes: a study of Greenlandic Eskimo. University of Chicago Master's essay.