The experiencer role in the expression of mental states and activities in Trio

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1. Introduction

This paper starts with a short general overview of morphosyntactic person marking in Trio, that is, how participants are formally encoded, before moving on to the semantic roles that are expressed¹. The word categories in Trio that allow the encoding of at least one participant are verb, noun, and postposition. One of the many interesting features of Trio is the range of ways in which participants can be encoded on these three word categories, ranging from two participants on a finite verb, through middle and reflexive marking, to an agent expressed on a postposition, with many other possibilities inbetween. Some general properties of case marking on each of the relevant word categories are given below.

¹ Trio is spoken by approximately 1500 speakers on both sides of the Surinamese-Brazilian border. The Trio (or Tiriyo) examples presented in this paper come exclusively from the Trio in four villages in the south of Suriname. I would like to thank the Royal Institute of Linguistics and Anthropology in Leiden for financing in part my fieldwork trip to Suriname (Dec.1997-Feb. 1998) where research for the present paper was carried out. My research on the Trio language is being subsidized by the Netherlands Organization for Scientific Research (NWO), project no. 300-75-026. I am indebted to Maarten Mous and Willem Adelaar for their helpful comments and suggestions.
2. Person marking on verbs

Trio distinguishes four sets of personal prefixes marked on the verb that are used to encode participants, that is, the grammatical subject and object of a verb, both of which are marked on the verb in *portmanteau* morphemes. Trio distinguishes four exponents of the category of person, namely first (1), second (2), first and second (1+2), and third (3). The first major division that has to be made in the person marking is that between speech act participants (SAPS), that is, first, second, and 1+2 persons, and non-speech act participants, that is, third person. Evidence for the distinction is found in the plural marking and in a suffix on the verb. The personal prefixes are given in Table 1.

<table>
<thead>
<tr>
<th>Person</th>
<th>Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>w-</td>
<td>1→3</td>
</tr>
<tr>
<td>1</td>
<td>t-</td>
<td>1↔1</td>
</tr>
<tr>
<td>1</td>
<td>s-</td>
<td>1Ω</td>
</tr>
<tr>
<td>1</td>
<td>j-</td>
<td>1→ ; 3→1</td>
</tr>
<tr>
<td>2</td>
<td>m-</td>
<td>2→3; 2↔2; 2Ω</td>
</tr>
<tr>
<td>2</td>
<td>ë-/;±</td>
<td>2→3; 3→2</td>
</tr>
<tr>
<td>1+2</td>
<td>k(e&gt;ë)(it)-</td>
<td>1+2→; 1→2; 2→1; 1↔2; 1+2Ω; 1+2→3; 3→1+2</td>
</tr>
<tr>
<td>3</td>
<td>n-</td>
<td>3→3; 3↔3; 3Ω</td>
</tr>
</tbody>
</table>

In this paper I shall not go into detail on the semantics of the verbal suffix. Suffice it to say that in conjunction with the personal prefixes, non-past finite verbs are marked by the suffixes -e or -n, both of which are evidentiality markers; -e is used for SAPS unless in the interrogative, -n is used for the third person, and for SAPS in the interrogative, e.g. *witēe* “I am going”; *antæ witēn*? “which way should I go?”; *nitēn* “he is going.” In the examples that follow, I gloss the non-past tense+evidential markers undifferentiated as tense (TNS). The Trio examples in this paper are written orthographically. The symbol ë is phonetically realized as a schwa η; 1 is a central high vowel; r is a flap, often with lateral release; o is always open; the grapheme j is a palatal glide; the plosives p, t, k are unaspirated; final n is realized as a velar nasal; nasals generally assimilate in place of articulation to a following stop, i.e. np > mp; orthographic hp is realized as a bilabial fricative; s is often realized as a palatal fricative; h is realized as k in the eastern dialect and as h in the western dialect.

The symbols used in table 1 are to be read as follows: → = acting/acting on; ↔ = acting on reflexively (REFL); ⊔ = middle, i.e. affecting self/own body (MID). For the present I am omitting plural marking on the verbs since it would unduly complicate the picture. Plural marking is dealt with later as it becomes relevant.

When the stem initial vowel is a or o, the second person is marked by lengthening the initial vowel.
Table 1 is to be read as follows: the terms A, S, and O refer to the three primitive relations transitive subject, intransitive subject and transitive object respectively as given in Dixon (1994:6). w- indicates the first person subject of a transitive verb, A, acting on a third person object, O, \textit{wenejae} “I am bringing it”. t- indicates a first person acting reflexively on itself, \textit{tëene} “I see myself”, and s- indicates a first person affecting itself, that is, middle-marking, \textit{sepontëe} “I am dressing”. j- encodes a first person intransitive subject, S, \textit{jurakanae} “I am strolling around”, and also a first person O of a transitive verb with a third person subject, \textit{jenen} “he sees me”. m- encodes a second person A acting on a third person O, \textit{menejae} “you are bringing it”; a second person acting reflexively on itself, \textit{mëenen} “do you see yourself?”, or affecting itself, \textit{mepontë} “you dressed”. ē/-/- encodes a second person either acting, i.e. as an intransitive S, \textit{ēurukanae} “you are strolling around” or being acted upon by a third person A, \textit{ēenen} “he sees you”\textsuperscript{5}. ī(īt)- encodes any combination of the person 1+2; in the 1+2 person, when the verb begins in e, and the k- encodes first and second only, the initial vowel becomes ē, when the k- encodes first and second acting on a third person, the e remains but is lengthened, for example with the verb \textit{eta} ‘hear’: \textit{kētae} “I hear you/ you hear me”; \textit{keetae} “we hear him”. n- encodes a third person A acting on a third person O, \textit{nenejan} “he is bringing it”; or as S, \textit{nurakanan} “he is strolling around”; reflexively acting on itself, \textit{nēenen} “he sees himself”; and affecting itself, \textit{nepontën} “he is dressing”.

The verb valency is not solely encoded in the prefixes, rather, verb stems can be derived by means of the prefixes i- for transitive, ē(ēt,ēs)- reflexive and e- middle.\textsuperscript{6} Thus the seemingly neutralized distinctions in all persons except the first as regards the directionality of the transitive forms is still transparent in these persons as can be seen in (1,2)\textsuperscript{7}:

\textsuperscript{5} This ergative type patterning applies only to the SAPS and not to the third person.

\textsuperscript{6} The distribution of the allomorphs is ē- before e-initial stems; ēt- before a-, o-, or u- initial stems, the use of ēs- is seldom in the verbs, and seems to be lexically determined, the present lack of a more detailed analysis does not affect the arguments of this paper in any way. While all i- initial verbs are transitive, and all ē-initial verbs are reflexive, not all e- initial verbs, at least synchronically, are middle, cf. \textit{ene} ‘see’; \textit{eta} ‘hear’; \textit{w-ene} ‘I see him/her/it’; \textit{w-etae} ‘I hear him/her/it.’

\textsuperscript{7} Abbreviations used in the glosses are: A: agent; ANA: anaphoric; CAUS: causative; COREF: coreferential; CYC: cyclical; DP: demonstrative pronoun; DESID: desiderative; EU: euphonic; FACS: facsimile; IMP: imperative; INCHO.STAT: inchoative-stative; INSTR: instrumental; INTENS: intensifier; LOC: locative; MID: middle; NEG.EXP: negative experience; NF: non-finite; NOM: nominalizer; O: object; PL: plural; POS.EXP: positive experience; POSS: possessive; PRO: pronoun; PROVID: providative; PST: past; REFL: reflexive; S: subject; SENS: sense; STAT: stative; TNS: tense; TR: transitive; V: verb
Thus to summarize the personal prefixes on verbs, there is formally a four-way distinction in the first person; a two-way distinction in the second person; one form in the person 1+2 and in the third person.

3. Person marking on nouns and postpositions

Participant encoding on nouns is in the form of prefixes, given in table 2, which occur in possessive constructions to mark the possessor. The possessed noun may be followed by a possessive suffix -rï\(^8\). Participant encoding on postpositions is also in the form of prefixes which, with one exception, the goal postposition -ja, are identical to the possessive prefixes used for nominal possession. The exception is dealt with below. The prefixes for possessives and postpositions are given in tables 2 and 3 respectively.

Table 2. Possessive Prefixes on Nouns

<table>
<thead>
<tr>
<th>Number</th>
<th>Prefix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>j(i)-</td>
<td>j-eka</td>
<td>my name</td>
</tr>
<tr>
<td>2</td>
<td>ē-/ø</td>
<td>ē-eka</td>
<td>your name</td>
</tr>
<tr>
<td>1+2</td>
<td>k(ï)-</td>
<td>kï-pakoro</td>
<td>our (1+2) house</td>
</tr>
<tr>
<td>3</td>
<td>i-/ø(^9)</td>
<td>i-mone</td>
<td>her womb</td>
</tr>
<tr>
<td>3coref</td>
<td>t(ī)-(^10)</td>
<td>tū-pakoro</td>
<td>his/her own house</td>
</tr>
</tbody>
</table>

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\(^8\) The possessive suffix -rï which diachronically was possibly a marker of status constructus is now generally only found before the postposition -ja, see also Carlin (1997).

\(^9\) When a noun or postposition is vowel-initial the third person possessive prefix is ø-.

\(^10\) The 3COREF is a third person possessive prefix which is marked on possessed nouns to indicate co-referentiality between the possessor and the subject of the clause, that is, it signalizes the difference between “he saw his own father” and “he saw his (someone else’s) father.”
Table 3. Personal Prefixes on Postpositions  

<table>
<thead>
<tr>
<th></th>
<th>Examples</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>j(i)-</td>
<td>j-akërë</td>
</tr>
<tr>
<td></td>
<td>with me</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>è/-</td>
<td>a-akërë</td>
</tr>
<tr>
<td></td>
<td>with you</td>
<td></td>
</tr>
<tr>
<td>1+2</td>
<td>k(i)-</td>
<td>k-ëkërë</td>
</tr>
<tr>
<td></td>
<td>with us (1+2)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>i/-o-</td>
<td>o-akërë</td>
</tr>
<tr>
<td></td>
<td>with him</td>
<td></td>
</tr>
</tbody>
</table>

Although the above two sets of prefixes look identical, they differ in that they take different number marking in accordance with the word category involved, that is, the possessive prefixes on nouns are pluralized by the suffix -kon, those on postpositions are pluralized by the suffix -ne.

The goal postposition -ja, while it has much in common with the other postpositions, for example, it also marks plural number by means of -ne, differs from all other postpositions in some essential ways. Morphologically it takes identical person marking to that of other postpositions with the exception of the first person, which is marked by wi-.

Table 4. Personal Prefixes on Postposition -ja

<table>
<thead>
<tr>
<th></th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>wi-</td>
</tr>
<tr>
<td>2</td>
<td>ë-</td>
</tr>
<tr>
<td>1+2</td>
<td>kï-</td>
</tr>
<tr>
<td>3</td>
<td>i-</td>
</tr>
</tbody>
</table>

Syntactically -ja encodes an indirect object with some verbs, e.g., of the verbs “give”, “say” (3, 4), and also an agent in certain non-finite verb constructions (5), and in causative constructions it indicates an external agent (6). Semantically it encodes a recipient (3), a dative object (4), an active performer (5, 7), a causer (6), and an experiencer (8).

(3) n-ekarama-o wi-ja  
3→3-give-PST 1-GOAL  
"he gave it to me"

(4) irë  apo wi-ka-e  ë-ja  
DP.INAN.ANA like 1→3-say-TNS 2-GOAL  
"that’s what I say to you"

(5) kana  t-ënee-se i-ja11  
fish  COREF-bring-NF 3-GOAL  
(fish brought by him)  
"he brought fish"

(6) n-e-hpu-ponë-po-o  wi-ja  
3→MID-foot-smell-CAUS-PST 1-GOAL  
"I made him smell his foot"

11 The prefix tï-, glossed here as COREF, when used on non-finite verb forms is a semantically bleached, grammaticalized form of the 3rd person coreferential tï-. It is used in constructions of this type to fill the person-marking slot.
The above represents but a cursory explication of the morphosyntactic encoding of participants. Verbs fall into two general classes with regard to the type of participant encoding they allow, that is, there are two-argument verbs that encode both A and O, and one-argument verbs that encode S. A further type of participant encoding we shall deal with below is the stative/adjectival type such as in English “he is big.” In addition, a participant can be introduced by means of postpositions with a range of thematic roles. As far as the different types of participant marking will prove relevant for the encoding of the experiencer of mental states and events, we can summarize these in the scheme of table 5, which is given in the first person since that is where quantitatively the greatest differentiation can be made. Table 6 gives an example of each type, numbered T1, T2, etc., and the thematic roles that are encoded therein.

Table 5. Types of Possible Participant Encoding

1 - subject/(object) on a two-argument (transitive) verb: w-
2 - subject on a one-argument (intransitive) verb: j-
3 - object on a two-argument verb: j-
4 - subject on a detransitivized (reflexive) verb: t-
5 - subject on a detransitivized (middle) verb: s-
6 - subject on the verb “be” preceded by an adjectival (usually a nominal marked by the facsimile -me)
7 - subject on the verb “be” preceded by a noun marked with the instrumental -ke
8 - object marked on postpositions
9 - subject marked on the postposition -ja
10 - postpositions marked for cognizer or for stimulus

Table 6. Examples for table 5

<table>
<thead>
<tr>
<th>Thematic Roles</th>
<th>Thematic Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1: weneejae I am bringing it</td>
<td>actor (+control, +volition)</td>
</tr>
<tr>
<td>T2: jeretae I am resting</td>
<td>actor, experiencer (+control, +volition)</td>
</tr>
<tr>
<td>T3: jenen he sees me</td>
<td>patient, experiencer (-control, -volition)</td>
</tr>
<tr>
<td>T4: têene I see myself</td>
<td>actor, experiencer (+/-control; +/-volition)</td>
</tr>
</tbody>
</table>
4. Expression of Perception

Having distinguished the types 1 through 10, we can move on to look at which semantic roles are assigned to participants involved in expressions of perception, cognition, emotion, and mental behaviour. The relevant concepts for this paper, starting with perception, are given in table 7 which includes the categorial status of the expression involved:

Table 7. Experiencer of Perception

<table>
<thead>
<tr>
<th>Perception</th>
<th>Cat.Status</th>
<th>Type of participant encoding</th>
<th>Semantic roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>see</td>
<td>V</td>
<td>T1</td>
<td>perceiver (+/-control)</td>
</tr>
<tr>
<td>hear</td>
<td>V</td>
<td>T1</td>
<td>perceiver (+/-control)</td>
</tr>
<tr>
<td>smell</td>
<td>V</td>
<td>T1</td>
<td>perceiver (+/-control)</td>
</tr>
<tr>
<td>smell</td>
<td>V</td>
<td>T2</td>
<td>stimulus</td>
</tr>
<tr>
<td>taste</td>
<td>V</td>
<td>T1</td>
<td>perceiver (+control)</td>
</tr>
<tr>
<td>taste</td>
<td>V</td>
<td>T3</td>
<td>perceiver (-control)</td>
</tr>
</tbody>
</table>

The lexical equivalents of “see, hear, smell, and taste” are formally transitive, that is, two-argument verbs, where A is the perceiver and O is what is perceived or the stimulus of a sense-datum. In the case of “taste”, Trio distinguishes lexically between the physical act involved in apprehending an object and the cognitive state that results from that act. That is, in Croft’s (1993:64) model we have “actually a two-way causal relation … the experiencer is “acting on” the stimulus and conversely the stimulus is “acting on” the experiencer”. The fact that there is not necessarily a difference between active apprehension and perceptual state

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12 While most verbs that affect the body or express a change of body posture are middle, the choice of whether a verb will be middle or reflexive would seem to be lexically determined. This is evident from incorporated body-part nouns, some of which are middle-, some reflexive-marked.

13 It was not possible to find a lexeme that corresponds to the English “feel.” Unlike other Amerindian languages “feel” is not expressed by the verb “hear” in Trio.
can be concluded from the identical structures of the Trio translations of the (9, 10, 11) (a) active sentences and the cognitive (b) sentences\textsuperscript{14}.

<table>
<thead>
<tr>
<th>Active</th>
<th>Cognitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(9a) &quot;I looked at the boat&quot;</td>
<td>b &quot;I saw the boat&quot;</td>
</tr>
<tr>
<td>kanawa w-ene-ø</td>
<td>kanawa w-ene-ø</td>
</tr>
<tr>
<td>boat 1→3-see-PST</td>
<td>boat 1→3-see-PST</td>
</tr>
<tr>
<td>(10a) &quot;I listened to the radio&quot;</td>
<td>b &quot;I heard the radio&quot;</td>
</tr>
<tr>
<td>rario w-eta-ø</td>
<td>rario w-eta-ø</td>
</tr>
<tr>
<td>radio 1→3-hear-PST</td>
<td>radio 1→3-hear-PST</td>
</tr>
<tr>
<td>(11a) &quot;I smell the meat&quot;</td>
<td>b &quot;I smell delicious food&quot;\textsuperscript{15}</td>
</tr>
<tr>
<td>tēnēin w-ipokïnta-e</td>
<td>tipoinje ērepa w-ipokïnta-e</td>
</tr>
<tr>
<td>meat 1→3-smell-TNS</td>
<td>delicious food 1→3-smell-TNS</td>
</tr>
</tbody>
</table>

In the (a) examples the agent is assigned an active controlling role, i.e. A is physically doing something while the (b) examples, although identical in form, are to be understood on a more abstract level as profiling the experiencer of the relevant event or state. Thus there is overlap in the encoding of an active event and a cognitive experience in all the above examples. The concept “smell” is actually more complicated. There are at least three different verbs that are used to express “smell”; two of these are active and involve both the physical act of putting one’s nose to something to smell it as well as the active perception of a sense-datum, namely, \textit{w-ipokïnta-e} and \textit{w-iponë-e} “I smell it”. I have been unable as yet to discover any difference in either meaning or behaviour between these two forms. Another form meaning “smell” is an intransitive verb that encodes a non-active stimulus as S, as can be seen in (11c):

(11)c "I smell good"

\textit{tipoinje j-ipona-e}

delicious 1→smell-TNS

The concept “taste” is deviant from the pattern given in examples (9) through (11) in that the active and the cognitive events are expressed by two different verbs. In (12a) there is an acting participant as an experiencer, and in (12b) the stimulus is in the A role and the experiencer is encoded as the O of a transitive verb, that is, the stimulus “honey” is causing a taste sense-datum in the experiencer. The morphological form of

\textsuperscript{14} Word order in transitive constructions is OVS, in intransitive constructions the S may precede or follow the V.

\textsuperscript{15} While recognizing that \textit{tipoinje} 'delicious' and its antonym \textit{tipokïne} 'bad-tasting, bad-smelling' are derived forms, I simply give the English translations here.
the verb in (12b) consists of an incorporated body-part noun (mï)ta “mouth” followed by the incorporating “perception” root poinë. Example (12b) shows that the morphological form of the verb (whether it is derived or simplex, an incorporated body-part or not) is also a determinant in the roles assigned to participants, that is, how the semantic experiencer will be encoded.

(12)a "I taste (try) the pepper"  
   pîmëi w-ïjohreka-e  
   pepper 1→3-taste-TNS

b "I taste honey"  
   wanë j-inta-poinë-n  
   honey 3→1-mouth-taste-TNS  
   Lit.: honey mouth-tastes me

It is hardly a coincidence that the form of the verbs “smell” and “taste” is very similar. The nominal form for both concepts is ipoin, as in wanë ipoin-ke (honey taste-INST) “with the taste of honey”, ipoin-(n)na (3POSS.taste-/smell-LESS) “taste-/smell-less, i.e. bad-tasting, bad-smelling”. The adjectival form tîpoinje refers to both “good-tasting” and “good-smelling”, while tîpokïne refers to “bad-smelling”. Thus it would seem that linguistically in Trio, as in general in humans, the chemical sensory systems (smell and taste) are not kept completely distinct, that is, there is a general concept for “olfactory and gustatory sense-datum experience”, and that the distinction that is made is along the lines of whether the sensation is pleasant or not.

Perceptual judgement is expressed by an obliquely marked experiencer, that is, the experiencer is marked on the goal postposition -ja\(^{16}\). The sense modi are encoded as adjectivals in two distinct types of construction according to whether the experience is a positive or a negative one. For the positive experience the active verbs “see” and “hear” are marked with the coreferential prefix tî- and are then suffixed by the positive (experience) marker -pore (13a, 14a). The negative experience is expressed by means of an i- possessed nominalized verb form suffixed by -pora as in (13b, 14b)\(^{17}\). The “taste” and “smell” concepts, as stated above,

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\(^{16}\) However, one construction has been attested where perceptual judgement can be expressed by an active experiencer, namely with the verb “see” as in: serë kure w-ene-o (DP.INAN.PROX good 1→3-see-TNS), literally “this good I see it” meaning “this looks good to me.”

\(^{17}\) The form tî-stem-pore is also found with nouns, e.g., tî-pakoro-pore manan “do you have a nice house?” Likewise the negative -pora can also be marked on nouns that are possessed, as in: i-pakoro-pora ëmë (IPOSS-house-NEG 2PRO) “you have a bad house.” Note that the possessed form refers to the noun itself and not to the person of the pronoun. The prefix i- is a semantically bleached grammaticalized form of the 3rd person possessive prefix i-. While these constructions are the topic of another paper, suffice it to say for now that the tî- and the i- prefixes here are in complementary distribution, i.e. the scope of the predication marked by tî- includes the subject,
use one adjectivalized form, namely tïpoinje for the positive sensation (15a, 16a). Negative judgement is expressed for both by means of the possessed nominal ipoin “taste, smell” suffixed by -nnna meaning “without, -less” (15b, 16b), and alternatively “bad-smelling” can be expressed by means of the adjectivalized form tïpökïne (16c) as discussed above.

(13)a t-ëne-o-pore wï-ja
COREF-see-NOM-POS.EXP 1-GOAL
"(this) is good-seeing to me"
(13)b o-ene-opora manae wï-ja
3POSS-see-NOM-NEG.EXP you.are 1-GOAL
"(you are) bad-seeing to me"

(14)a t-ëta-o-pore serë wï-ja
COREF-hear-NOM-POS.EXP DP.INAN.PROX 1-GOAL
"this sounds good to me"
(14)b o-eta-o-pora wï-ja
3POSS-hear-NOM-NEG.EXP 1-GOAL
"that doesn’t sound good to me"

(15)a tïpoinje nai wï-ja
delicious it.is 1-GOAL
"I like the taste of it"
(15)b o-ipoin-nna nai wï-ja
3POSS-taste-LESS it.is 1-GOAL
"I don’t like the taste of it"

(16)a tïpoinje n-ipona-n wï-ja
delicious 3→-smell-TNS 1-GOAL
"it smells delicious to me"
(16)b o-ipoin-nna ëmë wï-ja
3POSS-smell-LESS 2 PRO 1-GOAL
"you smell bad to me"
(16)c tïpökïne ë-pona-e wï-ja
bad-smelling 2→-smell-TNS 1-GOAL
"I don’t like the smell of you"

"this looks good to me" (you are bad-seeing to me)
"I think you look terrible"

"this sounds good to me"
"that doesn’t sound good to me"

"it is delicious to me"
"it is tasteless to me"

"I don’t like the smell of you"

The experiencer is thus expressed as an oblique and the actual state of affairs has not been instigated nor is it controlled by the experiencer. The fact that causer and stimulus are not (always) identical can be seen in examples (17, 18) where the stimulus is the subject of the intransitive verb, and the causer obliquely marked by means of the suffix -poke “with smell, with taste”18:

(17) rosijon-poke ë-pona-e
perfume-SENS 2→-smell-TNS
"you smell of perfume"
(18) kana-poke nai ji-nta
fish-SENS it.is 1POSS-mouth
"I have a fish-taste in my mouth"

Role assignment is often more clearly reflected or more transparent in causative constructions. In (19) we see the root ipokïn- ‘smell’ (cf. (11)
above) followed by the inchoative stative -\textit{ma} which would seem to have a causativizing function. The initiator of the action or causer of a change of state is encoded by \textit{w-}, and the stimulus or source of that state, i.e. “smell” is the object also encoded in the \textit{w-}.

(19) \textit{ji-muku w-ipokîn-ma-e}  
\hspace{1em}1POSS-child 1→3-smell-INCHO.STAT-TNS  
"I make my child smell good" (I put perfume on him)  

In (20) we have a stative construction with the causer of the state encoded on the verb “be”, and the experiencer encoded as a possessed object of the concept “be in nauseous state”. Example (21) shows the acting A causing a change of state with the source of the change encoded as the subject marked on the postposition -\textit{ja}, that is, “I caused his food to make him be in a nauseous state”. Thus A is bringing about a change of state in the object-experiencer with food as the causer or source of the experiential verb and thus the external “subject” of the verbal complex.

(20) \textit{j-inuja-n-me nai}  
\hspace{1em}1-feel.nausea-NOM-FACS it.is  
"I don’t like the taste of it" (it is something that makes me feel nauseous)  

(21) \textit{w-inuja-ma-po-e erepa-rî-ja}  
\hspace{1em}1→3-feel.nausea-INCHO.STAT-CAUS-TNS 3POSS.food-POSS-GOAL  
"I make his food make him feel nauseous"

That “food” in (21) is the subject of the “making nauseous”, and that the subject marked on the verb is not the direct causer of the state or event is evidenced by example (22) where a reflexive action on an incorporated body-part is encoded on the verb, that is, subject and object allotment is taken up in the \textit{portmanteau} prefix and the external causer or instigator of the action is encoded on the postposition -\textit{ja}, that is, “the doctor caused his hand-smelling himself” (the superscript indicates coreferentiality).

(22) \textit{datra-ja n-činja-pokînta-hpo-0}  
\hspace{1em}doctor-GOAL 3↔3-REFL.hand-smell-CAUS-PST  
"The doctor made him’ smell his’ hand"

This type of “subject” encoding is not conditioned by the reflexive as it might seem. A similar construction is found in (23) where the body-part is not incorporated, and thus does not require a reflexive (or in this case middle).
(23) **ti-hpu o-iponë-po-o wi-ja**

COREF-foot 3→3-smell-CAUS-PST 1-GOAL
"I made him smell his (own) foot"

To sum up, the possible ways of encoding the perceiver of a sense-datum are as follows: T1, T2, T3, T4, T5 and T9, encoding the control-perceiver of sense-datum, the non-control recipient of sense-datum; the stimulus of sense-datum, as well as causer of stimulus, and causer of control-perceiver.

5. Expression of Cognition

The concepts involved in the expression of cognitive actions and states are given in table 8.

Table 8. Experiencer of Cognition

<table>
<thead>
<tr>
<th>Cognition</th>
<th>cat.status</th>
<th>type of participant encoding</th>
<th>semantic roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>know</td>
<td>Postposition</td>
<td>T10</td>
<td>experiencer (-control)</td>
</tr>
<tr>
<td>not know</td>
<td>Postposition</td>
<td>T10</td>
<td>experiencer (-control)</td>
</tr>
<tr>
<td>remember</td>
<td>particle/V</td>
<td>T10</td>
<td>experiencer (-control)</td>
</tr>
<tr>
<td>forget</td>
<td>V</td>
<td>T2</td>
<td>experiencer (+control)</td>
</tr>
</tbody>
</table>

The concepts “know” and “not know” are expressed by means of two postpositions, **-warë** and **-wame(ke)** respectively. While I call these stems postpositions – they take the same plural marking as the postpositions, namely **-ne**, see (26b) – the exact categorial status of these elements is unclear at present; they behave like postpositions yet they are lexical in nature and also more independent than postpositions. The experiencer of these concepts is expressed on the postposition itself, and the object of cognition or stimulus is encoded as the subject of the verb “to be” which always occurs after the postposition. Compare the positive examples in (24), which could be translated as “known to me”, or “of my knowing” and their negative counterparts in (25):

(24)a  **ji-warë nai**  
1-know s/he/it.is  "I know her/him/it"

(25)  **b ē-warë wae**  
2-know I.am  "you know me"

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19 When a third person subject is preceded by a lexical object, the personal prefix **n-** is not marked on the verb.
(25)a  ě-wame wae  
2-not.know I.am  
"you don’t know me"

(26)a  ji-warë nai  
1-know he.is  
"I know him"

(27)a  ji-warë-pa-ne nai mëe  
1-know-CYC-PST he.is 3PRO  
"I remember him"

(28)  ě-wameke-ne nai  
2-not.know-PL he.is  
"you (pl) don’t know him"

To sum up, “know”, “not know” and “remember” form a group within the expressions of cognitive states. They are stative and involve no control on the part of the experiencer. On the other hand the concept “forget” does entail a certain amount of control on the part of the experiencer.

20 Note that there is another expression “remember” which is based on the bodypart enu “eye”, namely j-enuta-pa “I remember”.

21 The verb ihtëinkapa(mï), an apparent synonym of ihtëinkama with the inchoative stative -ma, is a complex verb stem but I have as yet been unable to isolate the parts in a satisfactory manner.
6. Expression of Emotion

The expressions that are used to denote emotions can be subdivided into two groups, namely those that are totally stative and those that denote a change of state. Moving from stative to change of state, the concepts dealt with in the following are given in table 9.

Table 9. Experiencer of Emotion

<table>
<thead>
<tr>
<th>Emotion</th>
<th>cat.status</th>
<th>type of participant encoding</th>
<th>semantic roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>happy</td>
<td>Adj</td>
<td>T6</td>
<td>experiencer (-control)</td>
</tr>
<tr>
<td>sad</td>
<td>Adj</td>
<td>T6</td>
<td>experiencer (-control)</td>
</tr>
<tr>
<td>ashamed</td>
<td>N</td>
<td>T6, T7</td>
<td>experiencer (-control)</td>
</tr>
<tr>
<td>afraid</td>
<td>N, Particle</td>
<td>T6, T7, T10</td>
<td>experiencer (-control), stimulus</td>
</tr>
<tr>
<td>angry</td>
<td>V, Adj</td>
<td>T2, T4</td>
<td>experiencer (+control)</td>
</tr>
<tr>
<td>worry</td>
<td>V derived</td>
<td>T4</td>
<td>experiencer (+control)</td>
</tr>
<tr>
<td>surprise</td>
<td>V derived</td>
<td>T4</td>
<td>experiencer (+control)</td>
</tr>
</tbody>
</table>

In most mental states, the experiencer is encoded on the verb “to be” and the state itself is adjectival in nature. In Trio, when a modifying word is attributive, the root form is given as in example (31a) and when used predicatively it is suffixed by -me which is a facsimile (adjectivalizing) marker used to indicate a non-inherent state, compare example (31b):

(31)a mono konopo n-e-jaN²² b mono-me nai mëe
big rain 3→3-come-TNS big-FACS he.is 3PRO
"heavy rain is coming"  "he is big"

The expressions “be happy, sad” may be read as “be in a state of happiness, sadness”, i.e. the underlying concept for these expressions is one that highlights the entry into and the ongoing process with the premise that the state is neither an inherent nor a stable one. These are given in the following:

(32) sasa-me wae  "I am happy"
(33) ėmu-me wae  "I am sad"

²² Note that like the verb “be,” in Trio, the verb “come” is irregular, both take the transitive set of prefixes.
In the same manner, being in a state of “fear” and “shame” is expressed by means of nominal roots (e)nari- and pïi- respectively, suffixed by the facsimile marker -me, while the experiencer is encoded on the verb “be”, as in (34, 35)\(^{23}\). This usage with -me, profiles the transient state and in contrast to the -ke construction described below, the immediate causer of the state is usually understood from the context\(^{24}\). A totally stative expression that makes no reference to either inception into that state nor to the endpoint of the state is formed by means of the instrumental suffix -ke, see (36, 37), which literally mean “I am with fear/shame”. The examples (36, 37) carry strong cultural import in that these are not desirable states to be in. Just as with “illness” these are states that overcome or invade one\(^{25}\). Being “with fear” for example can kill one, and being “with shame” can be the cause of someone leaving their village for good.

(34) nari-me wae  "I am afraid"
(35) pïi-me wae  "I am ashamed"
(36) nari-ke wae  "I am afraid"
(37) pïi-ke wae  "I am ashamed"

A stimulus or causer, unless embedded in a subordinate clause, cannot be expressed with constructions of this type. The expression "be afraid of something" requires use of the postposition -no, given in (38, 39) whereby the stimulus or causer is encoded on the postposition, and the experiencer is marked on the verb “be”. no- takes the same plural marking as the other postpositions and the cognizance postpositions above, cf. (26b).

(38)a kaikui i-no wae  b ji-no manan
jaguar  3-afraid I.am  1-afraid are.you
"I am afraid of the jaguar"  "are you afraid of me?"

(39) ë-no-ne wae
2-afraid-PL  I.am
"I am afraid of you (pl)"

\(^{23}\) The nominal status of, for example, (e)nari- is found in the plural marking -kon in such a form as k-ënari-kon-me nai (1+2POSS-fear-POSSPL-FACS he.is) “he scares us all”. Synchronically the root ëmu ’sad’ in (33) has not been attested as a noun, but like sasa in (32) meaning the 'sound of merriment' made by the beads in an apron clinking together while dancing, it does take the inchoative stative -ma.

\(^{24}\) Example (35), for example, could be said if one called someone to come and they did not come. This is something one can get over. It would more appropriately be translated perhaps by “embarrassed.”

\(^{25}\) The general state “be ill” is expressed adjectivally, ēsenë wae ‘I am ill’. With indefinite specific illnesses such as “fever” the instrumental construction is used, këi-ke wae (fever-INSTR I am) “I have fever”. It is in this sense that “shame” and “fear” too are seen as illnesses.
An alternative way of encoding the state of being afraid, whereby the entry into the state is salient, is formed by means of the root suffixed by the facsimile marker -me, whereby the experiencer is encoded in a prefix on the particle, and the stimulus is encoded on the verb “be”, (40).

\[(40)\] j-enari-me nai
1-fear-FACS it.is
"it scares me"

The state of being “angry” is not something that is easy to elicit in Trio. Indeed anger is not an emotion among the Trio that is readily and openly expressed; conflict situations are usually avoided if at all possible (cf. Carlin 1998). Nonetheless I give a few examples below. The stative concept “be angry” can be expressed by means of the adjectival ēire, which also means “dangerous to”. The experiencer is expressed on the verb “be”, and the stimulus is marked on the adjective, see (41).

\[(41)\] ē-eire wae b j-eire manan?
2-angry I.am 1-angry are.you
"I am angry with you"  "are you angry with me?"

In the expression of “anger” a distinction is made between the stative adjectival form as given in (41) and inception into the state which is expressed by means of an intransitive verb whereby the experiencer is encoded as S and the stimulus or cause is encoded on the locative postposition -pē “about, concerning”, see (42), an example with the negative imperative is given in (43).

\[(42)\] j-ikarauwa-e i-pē
1→angry-TNS 3-LOC
"I am (getting) angry with him"
"don’t be(come) angry!"

\[(43)\] ikarauwa-e-wa eh-kē
angry-NF-NEG be-IMP
"be not getting angry"

As was the case with the verb ipokïn-ta “smell”, cf. example (19), in order to make the verb transitive thereby encoding the causer of someone else’s state, the verbal ending in the stem changes to -ma to indicate that the object is the experiencer of the state and the subject is causer (44, 45).²⁶

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²⁶ -ma is a productive suffix that can be used with all those elements that can take -me in their adjectival form, and it functions as a transitivizing causativizer with stative concepts, e.g. jii-sasa-ma-n “he makes me happy”, wi-pii-ma-e “I embarrass him”.
A further possibility for the expression of “anger” is by means of the reflexive experiencer verb īsōre. The meaning of this verb is not only “be angry” but also “speak angrily” (46).

The expression of the emotional states “worry” and “surprise” is encoded by verbs based on the body-parts “liver” and “eye”. ērekoma denotes the general notion of “be in state of mental confusion”, and ērejaka denotes “surprise”. Both these verbs are derived from the body-part ēre “liver”, (unpossessed form is ēre) while the third enuhkama “confused” is based on the body-part ēnu “eye” (unpossessed: ēnu). They all profile the mental affectedness of the experiencer. The verb ērekoma is stative (cf. the -ma inchoative stative morpheme discussed for examples (19, 44, 45)), whereby inception into the state is profiled. The mental state denoted by this verb is more unpleasant than pleasant, one could translate it literally as “state of unpleasant liver-sensation”. The translations given in the examples below are in accordance with the context in which they were uttered. The experiencer is marked reflexively, and the cause or source of the state, if expressed, is encoded on the locative postposition -pē, see (47). The transitive form of this verb is given in (48, 49) whereby the subject is the causer of an unpleasant state in the object who is the experiencer.

The other verb enuhkama also denotes “confused” and is made up of the body-part ēnu “eye”, the reversative verbalizer -ka and the inchoative stative -ma which can be translated as “be de-eyed (de-
focussed), be confused”. This verb patterns in the same way as *erekoma* described above, compare (50).

(50)  j-enuhkama-e-wa  eh-kē
     3→1-confuse-NF-NEG  be-IMP
     "don’t be confusing me!"

The experiencer of the verb *erejaka* is also encoded with a reflexive experiencer (51). Unfortunately I do not have any transitive forms of this verb in my database.

(51)  t-ē-erejaka-ø
     1→1-REFL-surprise.PST
     "I am surprised"

The punctual counterpart of the concept “surprise”, that is, “get a fright” is also expressed by means of a verb with a reflexive-marked experiencer (52a). When the source or cause is expressed, the verb is transitive with a subject causer and an object experiencer (52b).

(52)a  t-ē-tīhka-e  b  moi  j-ītīhka-ø
     1↔1-REFL-frighten-TNS  spider 3→1-frighten-PST
     "I got a fright"  "the spider gave me a fright"

To sum up, “happy, sad, ashamed, afraid, angry” are stative concepts, some with differing degrees of stativeness, that is, stative and non-inherent or changeable encoded by -me, and totally stative expressed by -ke. What they all have in common is that they encode the experiencer on the verb “be” and that they retain a morphological stative marker -ma in transitive causative constructions, in which case the object of the transitive verb is then the experiencer of the state. The concept “anger” can be also expressed as an inceptive process, as an intransitive verb with an acting experiencer with a degree of control.

7. Expression of Mental Behaviour

The final category to be dealt with here is that of expressions that encode mental behaviour, that is, according to Halliday (1985), “processes of physiological and psychological behaviour” such as those given in table 10.
Table 10. Experiencer of Mental Behaviour

<table>
<thead>
<tr>
<th>Behavioural</th>
<th>cat. status</th>
<th>type of participant encoding</th>
<th>semantic roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>think</td>
<td>V</td>
<td>T1, T4</td>
<td>experiencer (+control)</td>
</tr>
<tr>
<td>laugh</td>
<td>V</td>
<td>T2</td>
<td>experiencer (+control)</td>
</tr>
<tr>
<td>dream</td>
<td>V derived</td>
<td>T4, (T1)</td>
<td>patient, experiencer (+control)</td>
</tr>
<tr>
<td>cry</td>
<td>V</td>
<td>T4</td>
<td>experiencer (+control)</td>
</tr>
<tr>
<td>grieve</td>
<td>V</td>
<td>T5</td>
<td>experiencer (+control)</td>
</tr>
</tbody>
</table>

All the concepts given in table 10 are expressed by means of verbs with subject marking including reflexive, middle, and intransitive. The concept “think” is expressed both by a transitive verb “think something” and by the reflexive “introspective” pondering whereby the emphasis is on the process itself, compare (53a,b):

(53)a  
1→3-TR-think-TNS  
"I am thinking (about it)"

(53)b  
1↔1-REFL-think-TNS  
"I am pondering"

The concept “laugh” is expressed by means of an intransitive verb erana (54a). The lexical aspect (Aktionsart) of this verb is not punctual but stative, with inception into the state in profile. The experiencer is an intransitive subject with control, as it can also be used with the imperative (54b). This verb cannot be transitivized, rather a different root is used to encode both experiencer and stimulus (55).

(54)a  
1→laugh-TNS  
"I am laughing"

(54)b  
erana-e-wa  eh-kē  
laugh-NF-NEG  be-IMP  
"don’t laugh!"

(55)  
3→1-laugh-NF-NEG  be-IMP  
"don’t laugh at me!"

The concept “dream” is cognitively not an action or process we have any control over. In Trio, however, “dream” encodes a controlling acting experiencer, a fact which can be attributed to the morphological structure of the verb. The root of the concept “dream” is nominal, namely amore “spirit, soul, shadow” which is followed by the transitive providative verbalizing suffix -htē, which is an allomorph of -ntē in

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27 tēpunējæ can also mean “I am mourning, grieving.”
example (1) above. Thus structurally this is an active verb, meaning “to provide oneself with a spirit” with a reflexive subject experiencer, as in (56a). When used with the transitive prefixes the experiencer is still the subject (A) and while there is an object, the subject is still the only affected participant, see (56b).

(56)a  
\[ t-\text{ët-amore-htë-ø} \]  
1-REFL-spirit-PROVID-PST  
"I dreamt"

b  
\[ \text{kaikui w-amore-htë-ø} \]  
jaguar 1-3-spirit-PROVID-PST  
"I dreamt about the jaguar"

The above example shows that the morphological make-up of an expression plays an important role in the morphological encoding of participants and in the choice of which roles they are assigned.

The concept “cry” is expressed by means of the verb ēsena, (57) where the experiencer is reflexively marked. A causer can be expressed either obliquely on the locative postposition -pë (57) or in a subordinate clause (58).

(57)  
\[ t-\text{ēs-ena-e} \]  
(i-pë)  
1-REFL-cry-TNS 3-LOC  
"I am crying (about him)"

(58)  
\[ i-\text{moiti-hpë wa-i-w-eh-topo-npë eta-o-tuwë n-ēs-ena-o mēe} \]  
3POSS-family-PST NEG-3POSS-eu-be-NOM-PST hear-NOM-after 3-REFL-cry-PST 3PRO  
"he cried when he heard that someone in his family had died"

With the concept “grieve” eponē the experiencer is subject of a middle-marked verb (59). The meaning of this verb is that of a general state of sadness, and is not only used to express sadness when someone dies but also when someone close leaves. The causer or stimulus can be marked obliquely on the postposition -pë (60) or in a subordinate clause (61):

(59)  
\[ s-\text{e-ponē-jae} \]  
1-MID-grieve-TNS  
"I am grieving, I am very sad"

(60)  
\[ \text{irēmao t-e-ponē-se} \]  \[ \text{irē-pē} \]  
then COREF-MID-grieve-NF DP.INAN.ANA-LOC  
"then he was sad about it"

(61)  
\[ t-e-ponē-se i-papa-hpē, tï-m uku-se iweike, tïwësinae \]  
COREF-MID-grieve-NF 3POSS-father-PST, 3COREF-son-DESID because he.cried  
"the father grieved for his son because he loved him, he cried" 28.

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Behavioural concepts that are encoded in other languages as verbs, such as “cough, snore, sneeze” etc. are expressed in Trio by means of the verb “say” plus a sound symbolic element, for example, **tonton nkan** “he says **tonton** = he is coughing”, **kororo nkan** “he says **kororo** = he is snoring”, **asino nkan** “he says **asino** = he is sneezing”. For this reason these concepts are omitted in the present paper.

8. Conclusion

In this paper I gave an overview of some of the possibilities for the encoding of participants on verbs, nouns, and postpositions. I showed that transitive finite verbs are marked for two participant roles, namely subject and object, intransitives for one, namely subject, and also which semantic roles can be expressed by these grammatical categories. In looking at the experiencer role we saw that on the one hand, the A of a transitive verb can be an experiencer as in the verbs of perception, whereby the object is the stimulus or cause. On the other hand, the same A can be a causer as in the stative verbs of perception marked with the inchoative stative morpheme **-ma**, whereby what is encoded as the object is in fact the participant who, on an intransitive verb would be marked as a subject, for example:

(62)  **ji-muku tïpoinje w-ipōkïn-ma-e**  "I make my child smell good"
(63)  **tïpoinje n-ipona-n ji-muku**  "my child smells good"

The verbs of perception, “see, hear, smell, taste” encode an active perceiver, with or without control. “Smell” can be further differentiated as a stimulus with or without control, and “taste” encodes the perceiver as an undergoer without control. The expression of cognition, such as “know” etc., is encoded mainly by means of postpositions with only “forget” in the form of an intransitive verb, that is, a controlling subject and experiencer whereby the stimulus is expressed on the postposition **-pê**. With the different expressions of emotion we could distinguish different types of stativeness encoded by **-me** (stative but transient), on the one hand, and **-ke** (totally stative) on the other. Furthermore, we saw that the concepts used for “perturbated mental state” are based on incorporated body-parts (liver and eye), a fact which has repercussions for participant marking on the resultant

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29 This is not to say that there can be no aspe ctual distinctions made with these concepts, one can distinguish between a one-off cough as expressed above, and someone who coughs all the time, i.e. has a cough, namely **otonò-htao nai mërë** “he has a cough”, literally “he is in coughing”. It is interesting to note that with such concepts the repetitive aspect (several coughs) is salient compared to more stative concepts such as **këi-ke nai mërë** “he has a fever”, literally “he is with fever”.
verb. All incorporated body-parts in Trio are either reflexive- or middle-marked, with the choice apparently a lexical one. Some of the concepts we saw above are morphologically derived forms, for example, t-ët-amore-htë (1<->1-REFL-spirit-PROVID) “I dreamt” and t-ë-enu-hka-ma-e (1<->1-REFL-eye-REVERSATIVE-INCHO_STAT-TNS) “I am de-eyed, de-focussed = I am confused” which offer us some explanations for the participant roles found. It is likely that the meaning of other similarly constructed forms has become obscured over time. I do not pretend to have covered all the possibilities that are available in Trio for expressing perception, cognition, emotion and mental behaviour, nor have I discussed the issue of transitivity/intransitivity that is so central to the marking of participants, yet I hope that I have been able to offer some insight into the complexity of participant marking and the semantic roles encoded therein in this restricted domain, the expression of mental states and activities in Trio.

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