

An analysis of the Okanagan “middle” marker –*M**

Philip Dilts
University of Alberta

The verbal suffix –*m* is used in Okanagan for a variety of functions, and as a result has been given a variety of names: middle or passive voice marker (Doak & A. Mattina, 1997), intransitive marker (Bathmaier 2002) or intransitivizer (A. Mattina 1994), underspecified (N. Mattina 1996) or switch-reference (A. Mattina 1994) subject agreement marker, or some combination of these. This paper argues that synchronically there are three separate –*M* morphemes with three distinct meanings underlying the uses described by the terms above. The meanings of the –*M* morphemes can be described with the following three names: *grooming-middle* marker when affixed to grooming or dressing verbs, *intransitivizer* on other semantically transitive roots, and *passive* marker when affixed to a syntactically transitive stem formed with a transitivizer. Only one of these three morphemes can be considered a canonical middle.

1 Introduction

Okanagan, an Interior Salish language, has a complex set of morphemes affecting clause structure and valence.¹ The present study focuses on one such morpheme, the –*M* morpheme, described alternately as a marker of middle or passive voice (Doak & A. Mattina, 1997), an intransitive marker (Bathmaier 2002) or intransitivizer (A. Mattina 1994), an underspecified or switch-reference subject agreement marker (A. Mattina 1994, N. Mattina 1996), or, more frequently, a marker serving some combination of the above functions. This paper proposes a reanalysis of the meaning of this morpheme in each of its uses.

Using morphosyntactic criteria as the primary source of evidence, I argue for making finer distinctions between some previously described meanings of –*M* and unifying others. In some cases, morphosyntactic criteria

* I would like to thank David Beck for his help with revisions of this paper and for his generous advice. Any mistakes or omissions that remain are my responsibility.

¹ The examples in this paper draw from literature encompassing the dialect chain known as “Colville-Okanagan.” A. Mattina (1987) provides an outline of the dialects within the language and their autonyms. The term “Okanagan” is used here for the sake of brevity, mirroring recent studies (A. Mattina 2004; N. Mattina 1996).

motivate no distinction in meaning where the intuitions of primary researchers, and even native speakers, would prefer to describe one. In other cases, the analysis presented here shows a clear syntactic difference between uses of $-M$ that previous studies have unified under a single term on conceptual or typological grounds.

This morphosyntactic analysis reveals three primary functions of the $-M$ morpheme, each in a separate context. When affixed directly to a semantically transitive stem, $-M$ acts as an *intransitivizer*, allowing semantically transitive stems to appear in syntactically intransitive (although bivalent) clauses. The syntactic subject of the corresponding active clause, usually the agent, is mapped to the syntactic subject of the intransitivized clause, while the participant mapped to direct object in the active clause is mapped instead to oblique syntactic object in the intransitivized clause.² If the stem is a grooming or dressing stem, the $-M$ is considered a *grooming-middle* marker: The patient of the event denoted by the corresponding active clause becomes co-referential with the agent of the event, the subject and lone syntactic actant of the new middle clause. When affixed to a stem formed with a transitivizer ($-nt$, $-st$, $-xít$, or $-(tu)ǫt$), the morpheme $-M$ acts as a *passive* marker. The syntactic subject of the corresponding active clause is demoted to oblique object, while the direct object is promoted to syntactic subject.

In section 2, I describe the methods I use to determine directness or obliqueness of the syntactic relations in a clause and syntactic transitivity. In section 3, I describe the contexts in which $-M$ is found and distinguish between inherently transitive and inherently intransitive verb roots. In section 4, I use the tools developed in sections 2 and 3 to evaluate each of the roles attributed to $-M$ and decide whether or not they fit the terms by which they are typically described. Section 5 provides a summary of the results.

2 Subjects and Objects in Okanagan

This section outlines the two criteria that will be used in to determine which participants in a clause can be considered direct syntactic actants: the choice of agreement marker(s) on the verb, and the presence or absence of oblique markers on the noun phrases.

2.1 Agreement markers

The first and most reliable method for determining the syntactic statuses of participants in a clause is to examine the choice of agreement markers attached to each verb:

² To my knowledge, there is no clear way to distinguish between indirect and oblique objects in Okanagan, so all non-direct objects are called oblique here.

	PERSON	SG.	PL.		PERSON	SG.	PL.
A	1	-n / -t	-m	S	1	kn=/ kən=	k ^w u=
	2	-x ^w	-p		2	k ^w =	p=
	3	-s / -m	-slx / -mlx		3	∅	-lx

O (-NT)	1	k ^w u=	k ^w u=
	2	-s	-m / -úlm
	3	∅	-lx

Figure 1. Okanagan person marking paradigms. Based on N. Mattina (1996:36)

Figure 1 shows a subset of the subject and object agreement markers.³ Slashes represent morphologically or morphophonologically conditioned allomorphy, and the equals sign is used to denote cliticization. In Figure 1, and in the rest of the paper, the terms *A*, *O*, and *S* are used to denote grammatical relations (after Dixon 1978; use in Okanagan is after A. Mattina 2004): *A* and *O* denote the syntactic subject and direct object of a transitive clause, respectively, and *S* denotes the syntactic subject of an intransitive clause. Example (1) shows *S*-marking in a simple intransitive clause, while (2) shows *A*- and *O*-marking in a simple intransitive clause.⁴

- (1) kən= x^wuy
 1SG.S= go
 'I went.' (A. Mattina 1994:217)
- (2) k^wu= cu-∅-s
 1SG.O= tell-TRNS-3SG.A
 'He told me.'⁵ (Doak & Mattina 1997:341)

In the following analysis, if a verb has *A/O*-marking, it is considered syntactically transitive and the entities that the markers refer to are considered

³ The *O* markers shown are for use with the *-nt* transitivizer; each transitivizer has a slightly different set of *O* markers. A separate set of *O* and *A* markers, often called "genitive" markers, are used in certain clause types, but are not discussed here.

⁴ Examples use the following abbreviations: 1/2/3=First/Second/Third Person, D=Deictic, F=Feminine, IRR=Irrealis, L.O.C.=Lack of control, LOC=Locative, M=Middle/Passive/Intransitivizer, MD=Middle, TRNS=Transitivizer, OBL=Oblique, PL/SG=Plural/Singular, S/A/O/P/PR=Intransitive Subject/Transitive Subject/Transitive Object/Possessed/Possessor, PR=Preposition, PNT=Punctual.

⁵ *-nt* is phonologically deleted for morphophonemic reasons in some person/number combinations. See Figure 2.

direct syntactic actants. If a verb has S-marking, the entity that the marker refers to is considered the only direct syntactic actant of a syntactically intransitive clause.

2.2 Oblique (*t=*) marking on nouns

Nouns in oblique noun phrases typically require additional morphological material, such as a locative marker or the oblique proclitic *t=*:

- (3) *kən= txa-m* *t=sǰǰǰaɪʔ*
 1SG.S= comb-M OBL=stick
 'I combed my hair with a stick.' (Doak & Mattina 1997:341)

In example (3), the root *txa* ('comb') is marked with the S-agreement proclitic *kən=*, indicating intransitivity. The instrumental *sǰǰǰaɪʔ* ('stick'), an actant oblique to the clause, must be marked with the oblique marker *t=*. The same is true for what I will argue are passive clauses, as in example (4):

- (4) *cu-nt-əm-∅* *iʔ* *ta=yɪmɪxʷəm*
 tell-TRNS-M-3SG.S the OBL=king
 'He was told by the king.' (A. Mattina 1987:96)

In (4) the agent is marked oblique with *ta=*, an allomorph of *t=*, while a zero morph on the verb indicates a 3rd person singular S.

The use of *t=* to determine valency is not as simple as (3) and (4) suggest, however. First, *t=* can also be attached to overt agents in active clauses:

- (5) *cu-∅-s-∅-ɪx* *iʔ* *t=ʎaǰǰǰǰǰap-s*
 tell-TRNS-3A-3O-3PL the OBL=parents-3P
 'His parents told him.' (A. Mattina 2004:284)

In (5), the verb has A/O-agreement indicating a transitive clause, but the agent NP co-referent with the syntactic subject of the clause (*ʎaǰǰǰǰǰap-s*, 'his parents') is marked with 'oblique' *t=*.⁶ A. Mattina (2004) analyzes the NP as an adjunct to the clause although it is co-referent with the syntactic subject. If we adopt this position, we might consider the syntactic subject in (5) to be the 3A marker *-s-* or an elided NP that it agrees with. Mattina implies that the agent in an active clause always or almost always receives this marking, although he points out the existence of a small number of counter-examples in his data:

⁶ Both Alutor (Mel'čuk & Savvina 1978) and Dyrbal (Mel'čuk 1988) have a case-marker that, like *t=*, marks both agents and instruments. However, neither language uses the ergative/instrumental case marker for patients as Okanagan does for, e.g., *t=spicən* 'rope' in (12) ('I cut a rope') below.

- | | | | | | |
|-----|--------------------------------|-----|-----------------------|-----|---------|
| (6) | cu-Ø-s-Ø | iʔ | likuk | iʔ | lipúl-s |
| | tell-TRNS-3A-3O | the | rooster | the | hen-3P |
| | ‘The rooster said to the hen.’ | | (A. Mattina 2004:287) | | |

In (6), the NPs co-referential with both the agent and the patient are expressed without oblique marking, suggesting that they are the direct actants A and O that trigger agreement.

Examples (5) and (6) show that we cannot conclude from the presence of the oblique marker *t=* in an agentive NP that there is no co-referent direct syntactic actant in the clause. This does not prevent us from assuming, however, that the *absence* of the oblique marker from a noun phrase indicates that that noun phrase *is* a direct syntactic actant in the clause. Moreover, noun phrases co-referent with syntactico-semantic *patients* (or indeed, *non-agents*) that are marked with oblique markers represent semantic actants whose only co-referent NPs are adjunct to the clause. In other words, if a non-agent NP contains *t=*, I consider it oblique.

It follows, then, that the presence or absence of the oblique marker *t=* in certain types noun phrases can be used to make inferences about the syntactic structure of a clause.

3 Distribution of the *-M* morpheme

This section describes and evaluates claims in the literature about the contexts in which the *-m* morpheme can and cannot appear.

3.1 *-M* affixed directly to roots

3.1.1 *-M* attaches to inherently transitive roots only (A. Mattina 1994)

Anthony Mattina’s description of the distribution of *-M* (1994:217-8) is based in part on the transitivity of verb roots in Okanagan. The distinction drawn between *inherently transitive* and *inherently intransitive* roots in A. Mattina (1994) can be described in terms of two subtly different criteria. First, transitivizers can be affixed directly to some inherently transitive roots but not to intransitive roots. Second, bare intransitive roots can appear as predicates while bare transitive roots can not – they require a transitivizing-suffix in transitive clauses (A. Mattina 2004:280) or some other derivational morpheme (e.g., the reduplicant in (13a)) in intransitive clauses. Consider (7) and (8) below:

- (7) kən= x^wuy
 1SG.S= go
 ‘I went.’ (A. Mattina 1994:217)

- (8) *kən= k^wúí (t [noun phrase])
 *1SG.S work/fix (OBL [X]) (A. Mattina 1994:217-8)

According to the criteria given above, the appearance of the bare root x^wuy ('go') as a predicate in (7) means that the root is inherently intransitive, while the ungrammaticality (with or without the oblique actant) of the root $k'w\acute{u}l$ ('work.fix') without a transitivizer in (8) means that it is inherently transitive.

This definition of 'inherent transitivity' is worth examining. The root x^wuy ('go'), inherently intransitive by A. Mattina's criteria, represents a *semantically* transitive action (in the sense of Hopper & Thompson 1980). The clause in (7) is *syntactically* intransitive, as evidenced by the lack of NPs and the presence of the S-marker $k\acute{a}n=$ ('I'), and the presence of the bare root x^wuy without valence affecting affixes suggests that it can be considered a syntactically intransitive verb stem. Given this evidence of both its semantic and syntactic intransitivity, it is reasonable to describe x^wuy as inherently intransitive.

On the inherently transitive side, the verb root $k'w\acute{u}l$ ('work.fix') shown in (8) might easily be considered *semantically* transitive. A. Mattina (1994) supports this description, saying that these verb roots are "presumably, [...] felt to be inherently transitive." (A. Mattina 1994:215.) The *syntactic* transitivity of such verb roots, however, is difficult to evaluate. Since roots like $k'w\acute{u}l$ cannot appear without additional morphological material in *any* clause there is no clear basis on which to judge their syntactic transitivity. As an analogy, consider the English verb stem *-ceive*. While it occurs in the syntactically transitive verbs *receive* and *deceive*, it has no syntactic transitivity of its own.⁷ To avoid claims about the syntactic transitivity of bound roots like $k'w\acute{u}l$ ('work.fix'), in the following discussion I will refer to them alternately as *transitive-forming* or simply *bound* roots, rather than *transitive* or *inherently intransitive* roots.

We can now reformulate Anthony Mattina's position (1994:217-8) in the following way. Transitive-forming verb bases can take the *-M* marker directly, while inherently intransitive bases can not.⁸ First, consider (9a,b):

- (9) a. $k\acute{a}n=$ x^wuy
 1SG.S= go
 'I went.' (A. Mattina 1994:217)
- b. $*k\acute{a}n=$ x^wuy-m
 $*1SG.S=$ go-M (A. Mattina 1994:217)

Example (9a) shows that x^wuy ('go') is syntactically intransitive, since it appears without a transitivizer in a well-formed clause. (9b) illustrates A.

⁷ I owe this example to David Beck (p.c.)

⁸ He also points out that "Speakers vacillate and disagree on whether or not *-m* is required in a given stem (usually with stems extended by other morphological material)" (A. Mattina 1994:217). Partly for this reason, the following discussion focuses primarily on *-m* attached to stems with a minimum amount of morphological material.

Mattina's claim that such roots can not take $-M$.

By contrast, consider (10a-c):

- (10) a. *kən= kʷúl (t [noun phrase])
 *1SG.S= work/fix (OBL [X]) (A. Mattina 1994:217-8)
- b. kən= kʷúl-əm (t [noun phrase])
 1SG.S work/fix-M (OBL [X])
 'I worked/fix (X).'
- c. kʷúl-Ø-s-Ø-əlx i? təx^wtlwís
 work/fix-TRNS-3A-3O-3PL the airplane
 'They made airplane.' (A. Mattina 1987:62)

In (10a), we see that *kʷúl* ('work/fix') is a *bound* root since it can not appear as a predicate without any affixes (with or without an oblique object). (10b) shows that at least some such transitive-forming roots can accept $-M$. (10c) shows that *kʷúl* is *transitive-forming*, since it takes a transitivizer, $-nt$, although that transitivizer is phonologically elided from this clause.

As a side note, it is worth pointing out that several transitive clauses used as examples in the present work appear to have no transitivizer, but this is due to phonological elision. Lexically unstressed roots lose the $-nt$ transitivizer when conjugated for first person singular and third person singular and plural A-agreement (for any O-agreement) (A. Mattina 2004:280). Figure 2 shows the phonological output forms for such a root, *wik* ('see'), with a third singular O:

	PERSON	SG.	PL.
A	1	wik-Ø-n	wik-nt-əm
	2	wik-nt-x ^w	wik-nt-əp
	3	wik-Ø-s	wik-Ø-s-əlx

Figure 2: Transitive forms of *wik* ('see'). Based on N. Mattina (1996:39)

N. Mattina's (1996) description of the distribution of $-M$ differs somewhat from A. Mattina's (1994). Most notably, while A. Mattina (1994:215-6) describes all uses of $-M$ on bound roots as simply *middles*, N. Mattina (1996:81-3) distinguishes between *middle* forms and another type of verb form, *generic object intransitives*. N. Mattina allows only verb roots related to grooming or dressing to be considered true middles. Consider the following examples:

- (11) a. kən= txa-m
1SG.S= comb-M
'I combed my hair.' (N. Mattina 1996:83)
- b. λ̣aʔλ̣aʔ-nt-∅-is-əlx iʔ stʔəwtilt-s
look.for-TRNS-3O-3A-3PL the youngest.child-3P
'They had looked for his youngest child.' (A. Mattina 1987:94)
- c. kʷu= λ̣aʔλ̣aʔ-arn iʔ t=kskwúltət
1PL.S= look.for-M the OBL=job
'We will look for a job.' (A. Mattina 1987:93)
- d. kən= λ̣aʔλ̣aʔ-ám
1SG.S= look.for-M
'*I looked for myself.' (N. Mattina 1996:83)

(11a) shows that the verb form *txa-m* ('comb-M') can be interpreted as a middle because its single actant *kən=* ('I') is both agent and patient.⁹ (See section 4.1 for details; See Kemmer (1993) for a more precise definition of *middle*.) (11b) and (11c) show that the verb stem *λ̣aʔλ̣aʔ* ('look.for') is a transitive-forming stem, and thus the form *λ̣aʔλ̣aʔ-arn* in (11c) falls under A. Mattina's (1994) definition of middle. With (11d), however, N. Mattina shows that such forms should not be interpreted as middles like (11a), since the agent and patient of the action 'look.for' are not co-referent. N. Mattina refers to forms like the one in (11c) as *generic object intransitives* (N. Mattina 1996:42).

Unlike A. Mattina's (1987) analysis in (11c), however, N. Mattina (1996) does not segment the verb into the constituents *stem* and *-M*. She gives (12) as an example of a generic object intransitive:

- (12) kn= nǐkm iʔ t=spícən
1SG.S cut(INTR) the obl=rope
'I cut a rope.' (N. Mattina 1996:46)

This separation of generic object intransitive from middle forms is a valuable insight, and one perfectly in line with the goals of this study. (I argue for the distinction, albeit with different names, in Section 4.2.)

I disagree with N. Mattina (1996) on the segmentation of *-m* in (12), however. Since several other verb forms like (12) end in *-M* (e.g., (11c)), and since the stems of these roots can appear without *-M* (e.g., (11b) above, or *nǐk-ənt* ('cut it with a knife'; A. Mattina 1987)), I will segment the *-M* in generic object intransitives.

⁹ Note also that middle forms in Okanagan are distinct from reflexives, which are formed with a separate affix *-(n)cút /-(s)cút*.

3.1.2 *-M* on an intransitive root? (Barthmaier 2002)

Barthmaier (2002) claims that there are inherently intransitive bases that take the *-M* morpheme, and provides (13a,b) as an example:

- (13) a. $n\text{-}\acute{c}x^w\text{-}\acute{a}x^w\text{-}\emptyset$
 LOC-spill/pour-L.O.C-3SG.S
 'It leaks.' (A. Mattina 1987:20)
- b. $n\text{-}\acute{c}x^w\acute{a}\text{-}m\text{-}\emptyset$
 LOC-spill/pour-m-3SG.S
 '(He) poured liquid in.' (A. Mattina 1987:20)

Barthmaier points out that S-agreement shows that (13a) $n\text{-}\acute{c}x^w\text{-}\acute{a}x^w$ ('pour.in-L.O.C.') and (13b) are both intransitive clauses. He then claims that (13b) is an intransitive clause derived from the intransitive clause in (13a), and that this shows that "the morpheme *-m* provides the grammatical resource to derive an intransitive predicate from an intransitive predicate." (Barthmaier 2002:6) There are two problems with this analysis. First, (13b) is *not* derived from (13a). Instead, *both* (13a) and (13b) are likely derived from the stem $n\text{-}\acute{c}x^w$ ('pour.in' – A. Mattina 1987:20). Second, the base $n\text{-}\acute{c}x^w$ ('pour.in') from which (13b) is derived is *not* an inherently intransitive base, as shown in (14) below:

- (14) $n\text{-}\acute{c}x^w\text{-}\acute{a}nt\text{-}\acute{i}x^w\text{-}\emptyset$
 LOC-spill/pour-TRNS-2SG.A-3SG.O
 'You pour it in.' (A. Mattina 1987:20)

The transitivizer *-nt* in (14) shows that by our criteria, $n\text{-}\acute{c}x^w$ is in fact a *transitive-forming* base, and that (13b) shows an intransitive predicate derived from a *transitive-forming* base. Barthmaier's claim that *-M* can derive intransitives from intransitives is thus unfounded, and the generalization that transitive-forming stems *may* take the *-M* morpheme while intransitive stems *may not* remains unchallenged.

3.2 *-M* after transitivizers

The *-M* marker can also occur after transitivizing suffixes:

- (15) a. k^wu $c\acute{u}\text{-}nt\text{-}\acute{a}m$
 1PL.S tell-TRNS-M
 'We were told/(he/they) told us.' (Doak & Mattina 1997:341)
- b. $ax\acute{a}?$ $c\acute{u}\text{-}4t\text{-}m\text{-}\acute{a}lx$ $i?$ $t=sq^wsi? \text{-}s\text{-}\acute{a}lx$
 this tell-TRNS-M-3PL(S) the OBL=son-3P-3PL
 'That's what their son told them.' (Doak & Mattina 1997:341)

- c. kʷm̄iʦ uʦ ixiʔ qʷlqʷil-st-m-∅ iʔ t=kwáp-s
 at once and then speak-TRNS-M-3SG.S the OBL=horse-3P
 ‘All at once his horse spoke to him.’ (A. Mattina 2004:285)
- d. wayʔ kən-xít-əm-∅ iʔ t=lʔiʷ-s
 well help-TRNS-M-3SG.S the OBL=father-3P
 ‘His father helped him.’ (Barthmaier 2002:7)

Examples (15a-d) show that *-M* can be affixed after each of the four transitivity markers, *-nt*, *-ʔt*, *-st*, and *-xít*. Similarities and differences between *Root+m* and *Root+Transitivity marker+m* sequences will be discussed in the following section.

4 Meanings of *-M*

In this section I examine the effect of *-M* on valency and grammatical relations. The description is heavily influenced by the terminology and distinctions made in Igor Mel'čuk's (2006) description of voice and valency and in his Meaning-Text Theory (MTT; Žolkovskij & Mel'čuk 1965) albeit in a modified form. Of particular importance is the *diathesis*, the mapping between the semantic actants of a verb and its syntactic relations.

MTT distinguishes two levels of syntactic relations, deep- and surface-syntactic. However, since this distinction would have no impact on the analysis presented here, it is ignored for ease of presentation.¹⁰

4.1 Middle voice?

The *-M* morpheme is almost always called a middle voice marker by Okanagan researchers (Doak & A. Mattina 1997; A. Mattina 1980, 1987, 1994, 2004; N. Mattina 1994, 1996), likely due in part to its role in grooming and dressing verbs as mentioned in section 2 above:

- (16) tx-ənt-ín-∅
 comb-TRNS-1SG.A-3SG.O
 ‘I combed his hair.’ (A. Mattina 1994:217)

Example (16) shows the diathesis of the verb stem *tx-ənt* ('comb-TRNS'). The

¹⁰ Considering deep and surface syntactic structure separately would, for example, require us to decide whether the demotion of the patient in the intransitivity marker uses of *-M* described below occurs at the deep or surface level. (i.e., whether *-m* marks deep-syntactic object *suppression* or surface-syntactic object *demotion*.) This might allow for more precise terminology, but neither analysis would lead to a unification of intransitivity uses with either middle or passive uses.

comber ('I') is mapped onto the syntactic subject and the *hair-combee*¹¹ ('him') to the direct object, as illustrated in Figure 3:

COMBER	HAIR-COMBEE
Subject	Object

Figure 3: Diathesis of *tx-ənt* 'comb (someone's hair)'

To see the effect of *-M* on such a grooming verb consider (17):

- (17) kən= txa-m
 1SG.S= comb-M
 'I combed my hair.' (N. Mattina 1996:83)

The form *txa-m* in (17) has no syntactic object while the semantic *comber* remains the syntactic subject. The *hair-combee* is co-referent with the *comber*, and thus becomes the syntactic subject as well, as shown by the diathesis is depicted in figure 4:

COMBER = HAIR-COMBEE
Subject

Figure 4: Diathesis of the middle form *kən=txa-m*. 'I combed my hair'

Each of the grooming and dressing verb roots shown to take *-M* in N. Mattina (1996) have diatheses similar to the one shown in Figure 4.

When noun phrases appear in these "middle" clauses, they must be marked with the oblique marker, and they do not correspond to the *hair-combees*:

- (18) a. kən= txa-m t=sǎǎǎǎi?
 1sg.s= comb-M OBL=stick
 'I combed my hair with a stick.' (Doak & Mattina 1997:341)
- b. kən= txa-m t=qəpqıntən i? təl sənƙmútən
 1SG.S= comb-M OBL=hair the from chair
 'I combed some hair off the chair.' (A. Mattina 1994:216)

In example (18a), the oblique NP *t=sǎǎǎǎi?* ('stick') is taken as an instrument. In (18b) the oblique *t=qəpqıntən* refers to a *combed* (an inanimate object undergoing combing) rather than a *hair-combee* (a person undergoing

¹¹ Informal but intuitive names such as "*hair-combee*" are used to denote the semantic roles of each verb in the following analysis.

grooming), and in contrast to (17) and (18a) the *comber* and the *combed* are not co-referent in (18b): the subject ‘I’ in (18b) does not comb itself off the chair, nor does the oblique ‘hair’.

The mandatory co-referentiality of agent and patient in (17) and the fact that this pattern is found primarily with grooming and dressing terms are both cross-linguistically typical properties of middles (Kemmer 1993). As such, I consider *grooming-middle* an appropriate name for this use of *-M*.

The *-M* form in (18b) is *not* considered a grooming-middle. A. Mattina (1994) and N. Mattina (1996) both analyze the verb *txa-m* in (18b) as having a root distinct from but homophonous with the one in (17) and (18a). The difference between the roots can be seen by comparing Figures 3 and 4 to the diathesis for (18b) shown in Figure 5.

COMBER	COMBED
Subject	Oblique

Figure 5: Diathesis of *txa-m* ‘comb something’

The diathesis for the *-M* form ‘comb someone’s hair’ illustrated in Figure 4 and the diathesis for the *-M* ‘comb something’ illustrated in figure 5 are incompatible, since the patients differ in semantic roles, syntactic relations, and mappings between the two. These differences support the notion that the roots in (18a) and (18b) are distinct. In the following section, I will argue that the *-m* in (18b) is also a separate *-M*, homophonous with the one in (18a).

4.2 Intransitivizer?

Several authors (A. Mattina 1994; N. Mattina 1994; Barthmaier 2002) refer to some uses of *-M* as *intransitive* or *intransitivizing*. This term can be applied when *-M* is affixed to transitive-forming roots that do not describe grooming actions:¹²

¹² A. Mattina’s (1994) used the term *intransitivizer* for a different construction, however:

- (i) way k^wu= a-ks-wik-əm
 well 1SG.O= 2SG.P-IRR-see-M
 ‘you’ll see me.’ (A. Mattina 1994:215)

A. Mattina claims that this *-M* is “added to all transitive stems (which then become intransitive) in the genitive paradigm of inflection.” (ibid.:214). However, (i) seems to be *transitive*, with marking for two actants on the verb. (O and P, with P as the subject.) A detailed analysis of these forms is not attempted here, but since it does not match any of the diatheses described, and since it seems to appear on all verbs with irrealis mood, this *-M* might be seen as part of a circumfix marking irrealis: *ks-...-m*.

(19) a. $tix^w-\emptyset-\text{ən}-\emptyset$
 obtain-TRNS-1SG.A-3SG.O
 'I'll take it.' (A. Mattina 1987:208)

b. $kən=$ $tix^w-\text{əm}$ $i?$ $t=s\check{x}^w\acute{u}səm$
 1SG.S= obtain-M the OBL=foamberry
 'I gathered the foamberries.' (A. Mattina 1987:208)

In (19a), the persons of the A/O-agreement markers show that the verb $tix^w-\text{ənt}$ ('obtain') has a transitive diathesis with an *obtainer* ('I') mapped to subject and an *obtained* ('it') mapped to direct object. (19b) shows that the $-M$ affixed form maintains an *obtainer*-subject mapping while the *obtained* (in this case, $s\check{x}^w\acute{u}səm$ - 'foamberries') is demoted to oblique object. Diatheses illustrating (19a-b) are shown in figures 6 and 7 below.

OBTAINER	OBTAINED
Subject	Object

Figure 6: Diathesis of $tix^w-\text{ənt}$ 'obtain'

OBTAINER	OBTAINED
Subject	Oblique

Figure 7: Diathesis of $tix^w-\text{əm}$ in (19b)

The difference between Figures 7 and 8 brings to mind the term *detransitivizer*, which implies the change in diathesis shown in Figure 8:

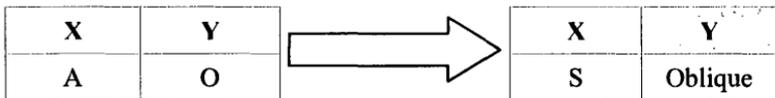


Figure 8: Change in diatheses implied by the term "Detransitivizer"

In Figure 8, the syntactic subject (A) of a transitive clause remains a subject (S) after detransitivization, while the direct object (O) is demoted to oblique. The left and right diatheses in Figure 8 correspond perfectly to the diatheses in Figure 6 and 7, respectively. If $tix^w-\text{əm}$ in (19b) were derived from $tix^w-\text{ən}$ in (19a) by the application of $-M$, we could call $-M$ a detransitivizer without reservation. However, both $tix^w-\text{əm}$ and $tix^w-\text{ən}$ are derived from the root tix^w , a bound root. As noted in Section 3.1.1, such bound roots cannot be said to have any level of syntactic transitivity, and thus no diathesis. As a result, we cannot claim that (19b) has undergone a diathesis change like that in Figure 8. (Or, in fact, any diathesis change at all.)

Moreover, while the diathesis in Figure 7 could result from the

detransitivization, it could also result from *intransitive applicativization*. Intransitive applicative forms undergo the change shown in the diathesis in Figure 9:

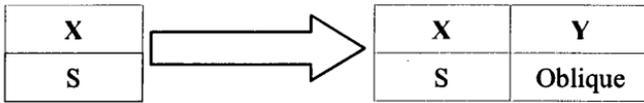


Figure 9: Change in valency implied by the term “intransitive applicative”

Instead of the syntactic demotion caused by the detransitivizer in Figure 8, Figure 9 shows an increase in semantic valency (or possibly syntactic valency) with no change in syntactic (in)transitivity. Still, analyzing *-M* as an intransitive applicative here is not an ideal solution. This *-M* attaches to transitivizer-forming roots that are felt to be semantically transitive, while intransitive applicativization should apply to a semantically *intransitive* verb. Perhaps more fatally, *-M* can not be affixed to verbs that are both semantically and syntactically intransitive, such as *x^wuy* (‘go’), as shown in (9b) above, despite the fact that such verbs would make natural targets for such a valency increasing process.

The class of roots that does accept this *-M* is composed of roots that do not appear on their own, but appear in syntactically bivalent *transitive* clauses with *transitivizers*, and in syntactically bivalent *intransitive* clauses with *-M*. By analogy, I will refer to this *-M* as an *intransitivizer*. This term parallels the use of the term *transitivizer*, and has already been used to describe the morpheme *-M* by Okanagan researchers.

Beck (2000) describes a similar intransitivizing use of two cognate middle markers, *-m* in Bella Coola (20) and *-b* in Lushootseed (21):

(20) ... a+kīx^w-m-∅ ʔat+tu+knum-aw+tš^w
 ... D+gnaw-MD-3SG PR+D+dried.fish-3P+D
 ‘... [the one who] gnaws at their dried fish.’ (Beck 2000:235)

(21) ʔu-q^wəb tsi luλ ʔə ti sʔuladx^w
 PNT-ripe-MD DF old PR D salmon
 ‘The old woman roasted herself a salmon.’ (Beck 2000:235)

In both (20) and (21), the syntactic subjects of the middle forms are co-referent with the agents of the events (‘the one’ and ‘the old woman’). The patients (‘dried fish’ and ‘salmon’) appear as optional, oblique noun phrases, as evidenced by the appearance of pronouns underlined in these examples. Beck notes that the oblique object in (20) has reduced saliency and that the middle marker in (21) serves to express self-interest of the agent. In both cases this serves to reduce the emphasis on the semantic endpoint of the clause. These detransitivative uses of *-m* and *-b* can thus be considered consistent with

Kemmer's (1993) definition of middle voice as signifying "relatively low elaboration of events" (Beck 2000:218).

Since the diatheses of the middle verbs in (20) and (21) would be essentially identical to that of the *-m* marker in Okanagan shown in Figure 7, we might allow this intransitivizing use of *-m* to be subsumed under the term "middle", as Beck (2000) does. However, I think the distinction between grooming-middle and intransitivizer is worth maintaining. While the conceptual unification of the disparate uses of a homophonous *-M* marker that Beck (2000) provides is valuable and interesting, the combination of the several functions of *-M* under the single term "middle" in Okanagan does not provide the linguist with sufficient information to know what it does. Each of the different uses of *-M* must still be enumerated before a researcher can determine which of the many behaviours subsumed under the term "middle" in the world's languages are and are not attributed to this particular "middle" marker. (This is also why the term *grooming-middle* chosen in 4.1 is preferable to plain *middle*.)

After describing the diverse functions of a similar middle-like marker in Huastec, Mel'čuk (1993) argues for separate descriptions of each of its functions:

This immediately reminds one of the notorious middle voice in classical languages. But what shall we do with it? Try to preserve generality and say that this is a SINGLE (inflectional?) category marking the absence of the patient ("Cancellation", as Constable calls it)? Or try to preserve the neatness of a logical analysis and see here, as elsewhere in similar cases, the homophony of the markers of VARIOUS grammemes and/or derivatememes? My philosophy forces me to adopt the second solution. [...] clarity and sharpness of distinctions is my first and foremost concern. (Mel'čuk 1993:41)

I share Mel'čuk's philosophy on this point. Based on the difference between the diatheses in figures 4 and 5 I will refrain from calling intransitivizing uses of *-M* in Okanagan middles.

4.3 Passive?

4.3.1 Is the sequence *transitivizer-M* exclusively passive?

-M is also occasionally described as a passive marker (Doak & A. Mattina 1997; Barthmaier 2002). Most recently, Anthony Mattina (2004) defined a passive verb form in Okanagan as one that contains a verb stem, transitivizer and *-M*, in that order. Recall the following examples:

- (22) a. k^wu= cu-∅-s
 1SG.O= tell-TRNS-3SG.A
 'He told me.'

(Doak & Mattina 1997:341)

- b. k^wu= cú-nt-əm
 1PL.S= tell-TRNS-M
 ‘We were told/(he/they) told us.’ (Doak & Mattina 1997:341)
- c. axáʔ¹³ cú-4t-m-Ø-əlx iʔ t=sq^wsíʔ-səlx
 this tell-TRNS-M-3S-3PL the OBL=son-3PL.P
 ‘That’s what their son told them.’ (Doak & Mattina 1997:341)

Example (22a) shows the active form of the verb *cut* (‘tell’), with a *teller* marked A and a *tellee* marked O. (22b) and (22c) both show *tellee* actants mapped to S while *tellers* appear as obliques (if at all: c.f. 22b). The relevant diatheses are shown in figures 10 and 11:

TELLER	TELLEE
Subject	Object

Figure 10: Diathesis of *cut* ‘tell’

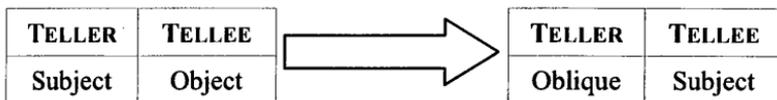


Figure 11: Change in diatheses of *cut* ‘tell’ due to *-m* in (22b,c)

The name “passive” fits this diathesis change nicely.

A transitivizer-middle sequence of likely cognates in Lushootseed also forms a passive (Beck 1996):

- (23) a. ʔu-ʔəy-dx^w čəd tsi č’ač’as
 PNT-find-L.O.C. I DF child
 ‘I found the girl.’ (Beck 1996:133)
- b. ʔu-ʔəy-du-b čəd ʔə tsi č’ač’as
 PNT-find-L.O.C.-MD I PR DF child
 ‘The girl found me.’ (Beck 1996:133)

In (23b), the root ʔəy (‘find’) is followed by the combination of the lack-of-control transitivizer *-dx^w* and the middle marker *-b*. Comparing this to the active version in (23a), we see that the effect of *-b* is to permute the mappings between semantic actants and syntactic relations, requiring the former syntactic

¹³ The role of *axáʔ* here is not clear; Since the verb has S agreement rather than A/O agreement, it cannot be considered a syntactic direct object. Until a consistent analysis is available, I will consider it an adjunct of the clause, possibly used for discourse reasons as *wáy* (‘well’) and other sentence initial words.

subject to surface as a prepositional phrase. That this syntactically and morphologically similar cognate form in a related language is also analyzed as a passive further encourages us to call the *-Trans-M* sequence a passive in Okanagan.

Barthmaier (2002) claims that (24b) below shows a *-Trans-M* sequence with antipassive effects in the connected discourse given in (24a-c):

- (24) a. nt^hk^wikiʔ-4t-x^w-∅ i-stʔəwtílt
 saddle-TRNS-2A-3SG.O 1SG.P-youngest.boy
 ‘Saddle it up for my youngest boy.’

[...] ¹⁴

He’s going to ride it, around here he’s going to ride it. He went out and went, and

ʔck’íck-4t-əm-∅
 arrive.back-TRNS-M-3SG.S
 he came back with it.’ (Barthmaier 2002:6)

- b. way’ixiʔ wt-xít-əm-∅ t=k-sqlaw’-s
 well D get-TRNS-M-3SG.S OBL=IRR-money-3P
 ‘He gave him some money.’ (A. Mattina 1987:229)

- c. [...]’
 ‘Gee, the little boy was tickled.’

way’ n-pk^w-4-ʔaqaʔ-əm-∅ iʔt=sqlaw’-s
 well LOC-put-CONN-pocket-M-3SG.S the OBL=money-3P
 ‘He put his money in his pocket.’ (Barthmaier 2002:7)

Bathmaier’s description of (24b) as an antipassive clause suggests that the *given* item, *k-sqlaw’-s* (‘money’), has been permuted from syntactic object (O) to oblique object, while the third person *receiver* remained the syntactic subject. This analysis is similar to the intransitivizing uses of *-M* shown in section 3.2 above, and if it were true it would force us to reanalyze the developing picture that holds *-Trans-M* as passive and *-Root-M* as middle or intransitivized.

To challenge the antipassive analysis of (24b) I note that it is not clear that the *given* item would be the direct object of the corresponding active clause. Many if not most languages, including Amerindian languages, have a *receiver* as direct object (or “primary object”) in ditransitive clauses (Dryer 1986).

¹⁴ The Okanagan data for some sections of (24a) and (24c) are eliminated for ease of presentation. The English gloss gives the reader enough discourse context to know to whom or what each pronoun in the gloss of (24b) refers.

Indeed, (25) below shows a *receiver* triggering O agreement on another verb root $x^w\acute{ic}$ ('give') in a ditransitive clause:

- (25) $axa?$ $in-c\acute{q}il\acute{a}n$, $i?$ $k^w_u=x^w\acute{ic}-\acute{a}xt-x^w$
 D 1P-arrow, the 1SG.O=give-TRNS-2SG.A
 'This is my arrow, the one you gave me.' (A. Mattina 1982:426)

In (25) the *giver* ('you') and the *receiver* ('me') appear as markers on the verb. Neither can be interpreted as referring to the *given*, $in-c\acute{q}il\acute{a}n$ 'my arrow'. If the *receiver* were the O in active $wt-xit$ ('get.for') clauses, and the *given* item oblique or indirect, (24b) could be seen as a simple passive form akin to those in (22b,c).

The interpretation of (24b) as *receiver* promotion rather than *given* demotion is further supported by an analysis of the discourse context surrounding (24b), shown in (24a,c). 'my youngest boy' is both the topic of the discourse and the *receiver* of money in (24b). Promotion of the boy to subject position in (24b), as per the passive analysis, is motivated by his topicality. (Note that the fact that the boy is the *receiver* in (24b) is made more clear by a passive gloss "he was given some money.") Demoting the *given* ('some money') to oblique as per the antipassive analysis, while it maintains topicality of the *receiver* subject, seems unmotivated.

No active $wt-xit$ ('get-for') clauses could be found with O-agreement unambiguously referring to either *given* or *receiver*, and no form of $x^w\acute{ic}-\acute{a}xt$ could be found with $-M$ affixed, leaving no definitive way to distinguish between these two analyses. With no evidence requiring, or even preferring, the antipassive analysis, I will accept the passive analysis for the sake of consistency, and claim that $-Trans-M$ sequences act as passive voice markers.

4.3.2 Is the sequence *transitivizer*- M compositional in meaning?

Is the meaning of the $Trans-M$ sequence composed of the meanings of $Trans$ and $-M$? The answer to this question is a clear no. First, the syntactic effect of the transitivizer on bound roots, despite its name, is not entirely clear. Since bare transitive-forming roots are ungrammatical, forms with and without transitivizers can't be directly compared. Second, none of the possible interpretations of $-M$ given so far, including grooming-middle (Figure 4) intransitivizer (Figure 7) detransitivizer (Figure 8), and intransitive applicative (Figure 9) lead naturally to the change in diathesis induced by $-M$ shown in Figure 11.

Non-compositionality leaves two possible analyses for the $-Trans-M$ sequences: Either the passive $-M$ is the same $-M$ as the middle $-M$ and the $Trans-M$ sequence is a morphological idiom, or there is a separate, homophonous passive voice $-M$ marker that occurs after transitivizers. The opposition between (22a) and (22b) illustrated in Figure 10 looks like a very standard passive voice being formed by the affixation of $-M$ to an active form

that includes a transitivizer. The morphological idiom analysis, on the other hand, would see the *-Trans-M* sequence being applied to bare, bound roots to passivize them, a somewhat unusual proposition. In fact, since transitive-forming roots are bound, they can not be considered active themselves. For these reasons, I consider the description of *-M* in this context as a passive marker, homophonous with but distinct from the intransitivizing and grooming-middle *-Ms*, to be the most natural.

4.4 Switched passive subject agreement marker?

Anthony Mattina (1994) used the following examples to show a purported use of *-M* as a switch-reference subject agreement marker:

- (26) a. cənʔúʔx^w pit, uʔ wik-Ø-s iʔ sq^wsíʔ-s
 come_in Pete, and saw-3SG.O-3SG.A the son-3P
 'Pete_j came in, and saw his_j son.'
 (A. Mattina 1994:212)
- b. cənʔúʔx^w pit, uʔ wik-ənt-əm-Ø iʔ t=sq^wsíʔ-s
 come_in Pete, and saw-TRANS-M-3SG.O the OBL=son-3P
 'Pete_j came in, and his_j son_k saw him_j.' (A. Mattina 1994:212)

In this analysis, the presence of *-M* does seem to indicate a switch in subject reference. When the syntactic subject of the first clause is co-referent with that of the elided subject in the second clause, the marker is not required. When the syntactic subject of the first clause is not co-referent with that of the elided subject in the second clause, the marker is required.

Consider the alternate analysis of (26b) shown in (27):

- (27) cənʔúʔx^w pit, uʔ wik-ənt-əm-Ø iʔ t=sq^wsíʔ-s
 come_in Pete, and saw-TRANS-M-3SG.S the OBL=son-3P
 'Pete_j came in, and was seen by his_j son.'
 (A. Mattina 1994:212)

Here the third person S-agreement marker is a morphological zero (as usual), and the *-əm* acts as a passive marker. The new gloss in (27) represents a more passive-sounding organization of the same propositional structure of the gloss in (26b). There is no clear way to determine which is correct.

Since the proposed switch-reference use of *-M* is formally indistinct from (and semantically quite similar to) the passive use described above, I will consider them both the same passive.

4.5 Underspecified subject agreement?

Nancy Mattina (1996) claims that *-M* acts as a marker of an underspecified third person subject. Recall (28):

- (28) cu-nt-əm iʔ ta=yłmíx^wəm
 tell-TRNS-M the OBL=king
 ‘He was told by the king.’ (A. Mattina 1987:96)

In (28), *-M* is taken to refer to (and agree with) the listener translated as ‘he’ in the final gloss. In N. Mattina’s analysis, the listener represents a subject that is “underspecified,” and she characterizes it informally as “*the other one or another one*” (N. Mattina 1996:40). As with the switch-reference analysis, however, the form is indistinguishable from a clause with a passive *-M* marker and a zero third person S-agreement marker, shown in (29):

- (29) cu-nt-əm-∅ iʔ ta=yłmíx^wəm
 tell-TRNS-M-3SG.S the OBL=king
 ‘He was told by the king.’ (A. Mattina 1987:96)

In fact, N. Mattina points out this ambiguity between possible analyses and notes that no passive forms can be created that would decide between the two, due to rules restricting formation of passives for certain person/number combinations. She argues that since native speakers do not translate sentences such as (28) (see, e.g., (26b)) as passives, the analysis in (28) is preferable. Translations are unreliable as sources of evidence, however, in detailed morphosyntactic analysis, since they rely on speaker judgments of similarity between utterances that may or may not be based on structural isomorphism.

Without access to native speakers, I cannot further investigate N. Mattina’s claim. Since the proposed underspecified-subject use of *-M* is formally indistinct from the passive use described above, I will again consider them both the same passive.

5 Summary

In this study, I identified three distinct effects of *-M* and their complementary distributional contexts:

- i) Grooming-Middle *-M*, following grooming or dressing roots only. Appears in intransitive clauses to signify that the S in this form performs the action specified by the root on him or herself. Illustrated in Figure 12:

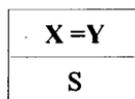


Figure 12: Grooming-middle *-M* clause

- ii) Intransitivizer –M, following semantically transitive roots. Allows the semantically transitive root to appear in a syntactically intransitive (though bivalent) clause. The A of the corresponding transitive clause become S, while the O becomes an oblique object. Illustrated in Figure 13:

X	Y
S	Oblique

Figure 13: Intransitivized –M clause

- iii) Passive –M, following transitivizers, for 3SG.S, 3PL.S and 1PL.S only. This is a typical passive: The O of the corresponding active clause becomes S, while the A of the corresponding active clause becomes oblique. Illustrated in Figure 14:

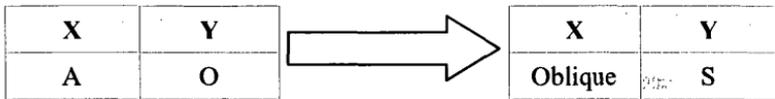


Figure 14: Passive

Since each of these uses represents a distinct diathesis and a distinct context, I consider three separate, homophonous –M morphemes. Only one of these –M morphemes, the grooming-middle marker, can accurately be called a middle marker.

The goals of this study are twofold: to synthesize previous descriptions of –M into a clear picture of what each –M means when, and to contribute a useful set of names for these –Ms. Clear description and clear naming are invaluable for typological comparison.

References

- Barthmaier, P. 2002. Transitivity and Lexical Suffixes in Okanagan. *ICSNL*, 37:1-15
- Beck, D. 1996. Transitivity and Causation in Lushootseed Morphology. *Canadian Journal of Linguistics*, 41(2):109-40
- Beck, D. 2000. Unitariness of Participant and Event in the Bella Coola (Nuxalk) Middle Voice. *IJAL*, 66(2):218-56
- Dixon, R. M. W. 1978. Ergativity. *Language*, 55(1):59-136
- Doak, I. & A. Mattina. 1997. Okanagan –lx, Coeur D’Alene –ilsh, and Cognate Forms. *IJAL*, 63(3):334-61
- Dryer, M. 1986. Primary Objects, Secondary Objects, and the Antidative. *Language*, 62(4):808-45
- Hopper, P. & S. Thompson. 1980. Transitivity in Grammar and Discourse. *Language*, 56(2):251-99

- Kemmer, S. 1993. *The Middle Voice*. Amsterdam: Benjamins
- Mattina, A. 1980. Imperative Formations in Colville-Okanagan and in the Other Interior Salishan Languages. *Glossa*, 14(2):212-33
- Mattina, A. 1982. The Colville-Okanagan Transitive System. *IJAL*, 48(4):421-35
- Mattina, A. 1987. Colville-Okanagan Dictionary. *UMOPL*, 5
- Mattina, A. 1994. *-tu#* and More on Okanagan Transitive Forms. *ICSNL*, 29:204-31
- Mattina, A. 2001. Okanagan Sentence Types: A Preliminary Working Paper. *ICSNL*, 36:215-35
- Mattina, A. 2004. The Okanagan Transitive Sentence Protoype. In D. B. Gerdts & L. Matthewson (eds.) *Studies in Salish Linguistics in Honor of M. Dale Kinkade*, *UMOPL*, 17:279-88
- Mattina, N. 1994. Roots, Bases and Stems in Colville-Okanagan. *ICSNL*, 29:232-42
- Mattina, N. 1996. *Aspect and Category in Okanagan Word Formation*. Ph.D. Thesis: SFU
- Mel'čuk, I. & E. Savvina. 1978. Toward a Formal Model of Alutor Surface Syntax: Predicative and Completive Constructions. *Language*, Special Issue 1978:5-39
- Mel'čuk, I. 1988. *Dependency Syntax: Theory and Practice*. Albany: The State University of New York Press
- Mel'čuk, I. 1993. The Inflectional Category of Voice: Towards a More Rigorous Definition. In B. Comrie & M. Polinsky (eds.) *Causatives and Transitivity*, 1-46
- Mel'čuk, I. 2006. *Aspects of the Theory of Morphology*. Amsterdam: Mouton
- Žolkovskij, A. K. & I. Mel'čuk. 1965, O vozmožnom metode I instrumentax semantičeskogo sinteza. (On a Possible Method and Instruments for Semantic Synthesis.) *Naučno-texničiskaja informacija*, 5:23-28

Philip Dilts
pdilts@ualberta.ca