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Instrumental semantic map in Western Iranian languages

Abstract: This paper aims to study instrumental related functions in some Western Iranian languages. The data were collected from descriptive grammars, and interviews in some cases. Narrog's instrumental semantic map is the basis for analyzing polysemy patterns in these languages. The data show that two main polysemy patterns are attested: (1) Instrumental and companion functions are coded alike. (2) They are coded differently. These two patterns are distributed areally. Furthermore, some languages are shifting/have shifted between these two types mainly as a result of contact-induced matters. In languages in which two or more functions are not directly connected, one marker generally has both instrumental and dative functions.

Keywords: semantic map, connectivity, instrumental marker, polysemy patterns, Western Iranian languages

1 Introduction

Semantic maps are tools which represent cross-linguistic regularities in the mapping of meaning on form (Narrog and Ito 2007: 273). They are tools for the representation of the polyfunctionality of words and more generally constructions (Auwera 2013: 154). Multifunctionality is prominent with grammatical morphemes (affixal categories and function words) and these morphemes have more abstract and general meanings and thus are more apt to be used in multiple ways than content words (Haspelmath 2003: 211). Croft (2003: 133) claims that a semantic map is a way for representing language universals and language-specific grammatical knowledge. In his words, the semantic map model does not assume that categories are universal across languages, it only

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assumes that conceptual space and certain relations between categories in conceptual space are universal (Croft 2003: 196). Semantic maps have been proposed for diverse aspects of linguistics structure (Cysouw et al. 2010), including tense/aspect (Anderson 1982; Janda 2007; Croft and Poole 2008), modality (Anderson 1986; Awera and Plungian 1998), voice (Kemmer 1993; Croft 2001), pronouns (Haspelmath 1997a; Cysouw 2007), case marking (Haspelmath 2003; Narrog and Ito 2007; Rice and Kabata 2007), clause linkage (Malchukov 2004), Spatial and temporal domain (Haspelmath 1997b; Levinson et al. 2003), intransitive predication (Stassen 1997), and secondary predication (Auwera and Malchukov 2005).

The present paper investigates functions of instrumental marker in Western Iranian languages. Narrog's instrumental semantic map (Narrog 2010: 243), which is a revised form of his shared work with Ito (Narrog and Ito 2007), is the basis for analyzing instrumental functions in these languages. Figure 1 shows the proposed map by Narrog:
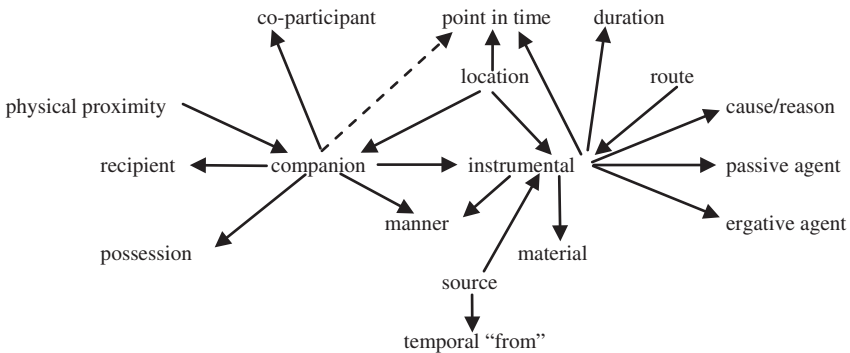

Figure 1: Narrog's (2010) Instrumental Semantic Map.

This map is based on the study of 200 languages. The drawing of map is based on two assumptions: (1) Each function should occur at least across 10 morphemes in the studied languages, and then the relation between meanings is calculated so that if the occurrence of one meaning depends on another meaning by more than 90 %, the existence of connections between these two meaning is hypothesized. (2) On singular co-occurrence of one meaning with a specific other meaning; if the morpheme M has only the meanings A and B, and this situation occurs in at least three different languages, there is a direct connection between these two meanings (Narrog and Ito 2007: 281).

The map is a diachronic one, and the arrows show directions of change between meanings. In this map, instrumental and companion are the core functions; their polysemy is the largest across language phyla (Narrog and Ito 2007: 287), and nearly all other functions are evolved from these two functions. An important point about semantic maps is that they may contain implicational universals, for instance, if a marker encodes instrumental and recipient, it should also encode companion, which is between these two functions on the map. Another point about markers is that they should cover connected regions on the map. This point has been named connectivity (Croft 2003), proximity (Haspelmath 2003), and adjacency (Auwera and Plungian 1998) in the literature. There have been some attempts to deal with polysemy in the instrumental-comitative domain. One can mention Luraghi (2001), Haspelmath (2003), and Yamaguchi (2004). Narrog and Ito (2007) argued against these maps and based on huge empirical data falsified a number of specific connections hypothesized in them.

According to Stolz et al. (2013), languages are classified into three groups in terms of encoding instrumentals and comitatives (companion in our term): (1) identity group, in which instrumental and companion are encoded alike, (2) differentiation group, in which instrumental and companion are encoded differently, and (3) mixed group, in which both identity and differentiation of instrumental and companion exist. They conclude that apart from Europe, every continent favors differentiation of instrumental and companion.

The question we try to answer is whether or not Narrog's proposed map can account for instrumental related functions in Western Iranian languages? And whether or not are there polysemy patterns exclusive to these languages? Also, we aim to show areal distributions of polysemy patterns in these languages. The topic is interesting since Iranian languages have not been elaborated on in Narrog's map, and their polysemy behaviors can shed light on further research for similar polysemy patterns across languages.

2 Instrumental related functions in Western Iranian languages

In this section, we discuss instrumental related functions in Western Iranian languages. The Iranian languages constitute the western group of the larger Indo-Iranian family which represents a major eastern branch of the Indo-European languages (Windfuhr 2009: 1). They are classified into western and

eastern sub-branches based on primarily phonological features, but also morphological ones.

According to Lehman and Shin (2005: 33–34, cited in Narrog 2009) seven strategies for the coding of concomitant functions, including instrumental, exist among which studied Iranian languages use case marking and adpositional marking.

2.1 Western Iranian languages

The under-investigated new Western Iranian languages include New Persian, Bakhtiari, Gilaki, Mazandarani, Taleshi, Balochi (western), Koroshi, Tati (Chali dialect), Northern Kurdish, Central Kurdish, Southern Kurdish, Gorani, Hawrami, and Tat (Juhuri variety). Among these, New Persian, Bakhtiari, and Tat are categorized as south-western, and the rest as north-western sub-branch of Western Iranian languages (Windfuhr 2009: 12–13). For each language, we provide functions of the instrumental marker, then we discuss the attested polysemy patterns and the conformity of the resultant maps to Narrog's map. The data from descriptive grammars are quoted with small changes in the transcription used by authors. To avoid ambiguity in the interpretation of functions, we provided examples of prototypical instances of these functions on Narrog's map. For instance, prototypical 'recipient' is the one encoding 'recipient phrase' in 'give constructions' (Newman 1996: 82).

2.1.1 New Persian

In New Persian, preposition *bā* (*abāg* in Middle Persian) marks instrumental related functions, including instrument (1a), companion (1b), co-participant (1c), manner (1d), and cause (1e):

(1) a. *dar   rā   **bā   kelid** bāz   kard-am*
      door OBJ INS key   open do.PST-1SG
      'I opened the door with a key'   [personal interview]
    b. *ketāb rā   **bā   xod**=at*   *bi-y-āvar*
      book OBJ INS REFL=2SG.PC IMP-EP-bring.2SG.IMP
      'Bring the book with yourself'   [personal interview]

c. *man **bā xāhar**=**am**   davā kard-am*
   1SG INS sister=1SG.PC fight do.PST-1SG
   'I fought with my sister'   [personal interview]

d. *Minā **bā ajaleh** āmad*
   PN   INS haste   come.PST.3SG
   'Mina came hastily'   [personal interview]

e. *elāhi javūn marg be-š-i   doxtar **bā** in*
   God young death IMP-become-2SG daughter INS DEM
   šohar-e   pāpati   ke   peydā kard-i
   husband-EZ[1] wretched COMP find   do.PST-2SG
   'Daughter! May you die soon because of finding such a wretched
   husband!'   [Najafi 1999: 107]
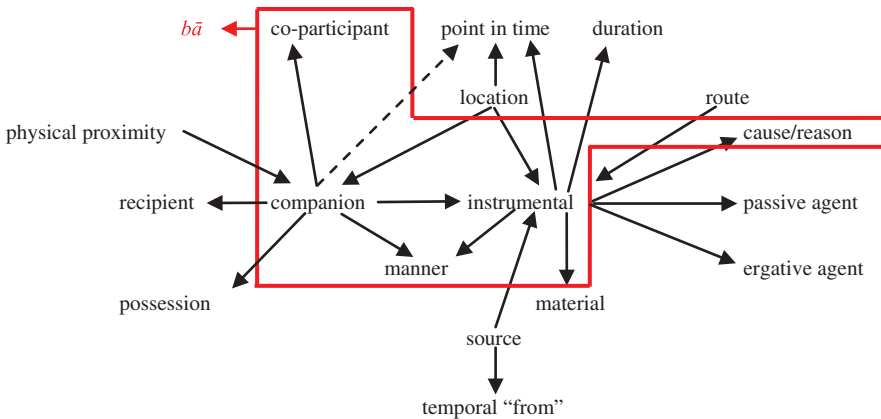
Figure 2 shows the map for *bā*:

Figure 2: Functions of *bā* in New Persian.

In Bakhtiari, another south-western Iranian language, as in New Persian, one
marker encodes polysemy in the instrumental-comitative domain. Here, *vā/vābā*
encodes functions of instrument (2a), companion (2b), co-participant (2c), and
manner (2d):

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1 Ezafe, a feature of certain Western Iranian languages, refers to an element which links the
head noun to its modifiers and to the possessor NP (Samvelian 2007: 605).

(2) a. ***vā din*=es**   *āsiyav-ne roft*
        INS tail=3SG.PC mill-OBJ sweep.PST.3SG
        'He swept the mill with its tail'   [Anonby and Asadi 2014: 118]

    b. *haf=tā*   *kize por ze   telā vo   norğe-ne* ***vā***
        seven=CLF jug full from gold and silver-OBJ INS
        ***xo*=s**   *bord*   *be qasr.*
        self=3SG.PC take.PST.3SG to palace
        'He took with himself the seven jugs which were full of gold and silver
        to the palace.'   [Anonby and Asadi 2014: 113]

    c. *ya   ru   **vābā zeyne*=s**   *men=e bāğ   e-torokest*
        one day INS   wife=3SG.PC in=EZ garden IPFV-walk.PST.3SG
        'One day when he was walking in the garden with his wife'
                                                  [Anonby and Asadi 2014: 114]

    d. *be=s   go   hamočo   be-mahn-e   o   **vā***
        to=3SG.PC say.PST.3SG right there SBJV-stay.PRS-3SG and INS
        āsāyešt *zendei bo-kon-e*
        comfort life   SBJV-do.PRS-3SG
        '(He) asked him to stay right there and have a comfortable life'
                                                  [Anonby and Asadi 2014: 116]

In both New Persian and Bakhtiari connectivity is observed and instrumental
and companion functions are encoded alike.

2.1.2 Gilaki

The Gilaki language is spread along the southern shore of the Caspian Sea in
one of the northern provinces of Iran known as Gilan (Rastorgueva et al.
2012: 1). In Gilaki, two adpositions encode instrumental related functions:
-amra marks instrument (3a), companion (3b), and co-participant (3c). The
other preposition, *bå*, code instrument (3d), companion (3e), co-participant
(3f), and manner (3g):

(3) a. ***kuləngə-amra*** *zuɣål kən-idi*
        pick.GEN-INS   coal   dig out.PRS-2/3PL
        'They are digging out coal with a pick'   [Rastorgueva et al. 2012: 170]

    b. *tan-əm* ***ti-amra***   *har jå   bi-g-i   b-á-y-əm.*
        can-1SG 2SG.GEN-INS every place SBJV-say-2SG SBJV-go-EP-1SG
        'I can come with you wherever you say.' [Rastorgueva et al. 2012: 243]

c. ***ašanə-amra***   *vasti* *mubarəzə* *kud-ən.*
   3PL.GEN.PROX-INS must fighting   do.PST-INF
   'We must fight them. (lit. It is necessary to fight them)'
                                                  [Rastorgueva et al. 2012: 337]

d. *šåyəd*   *ušan-am* ***bå u   nigåh-an*** *xéyli* *čiz-án-a*
   perhaps 3PL-too INS DEM glance-PL much thing-PL-ACC/DAT
   hamdigár-a   *bə-fahm-ane-idi.*
   each other-ACC/DAT SBJV-understand.PRS-CAUS-2/3PL
   'Perhaps they too, explained many things to each other with these
   glances.'   [Rastorgueva et al. 2012: 285]

e. *dåmåd-ə*   *mår*   ***bå čən=ta***   ***pir-zənək-an***
   bridegroom-GEN mother INS several=CLF old-woman-PL
   a-idi   *asb-ə*   *sər-ə*   *gir-idi*
   come.PRS-2/3PL horse-GEN head-ACC/DAT take.PRS-2/3PL
   arus-a   *bər-idi*   *bålåxåne*
   bride-ACC/DAT carry.PRS-2/3PL attic
   'The bridegroom's mother comes together with several old women, hold
   the horse's head, and take the bride into the upper room'
                                            [Rastorgueva et al. 2012: 397]

f. *arus-ə*   *per=u*   *mår=əm*   ***bå čən=ta***
   bride-GEN father=and mother=TOP INS several=CLF
   pir-zənək-an=u   ***rišsəfid-an-ə dihåt*** *məšγul-ə taayi*
   old-woman-PL=and elder-PL-EZ   village busy-EZ preparation
   kud-ən   *durust kud-ən-ə*   *šåm=u*   *γəza b-id*
   do.PST-INF right   do.PST-INF-EZ supper=and food be.PST-2/3PL
   'The bride's parents and several old women and honorable old men
   from the village were busy with the preparation of supper'
                                            [Rastorgueva et al. 2012: 393]

g. *Ahmədǰan səlam!* ***bå a   tund-i***   *kóya*
   PN   hello   INS this fast-ADVLZ where
   šuo-n   *dər-i*
   go.PST-INF have.AUX-2SG
   'Hello, Ahmed! Where are you going so hurriedly?'
                                            [Rastorgueva et al. 2012: 328]

The map for Gilaki is displayed in Figure 3 below. As seen on the map, these two adpositions are synonymous, but their synonymy is not absolute; *bå* covers one function more than *-amra*. If they were completely synonymous, they would violate the principle of economy and iconicity in grammar (Croft 2003: 106).
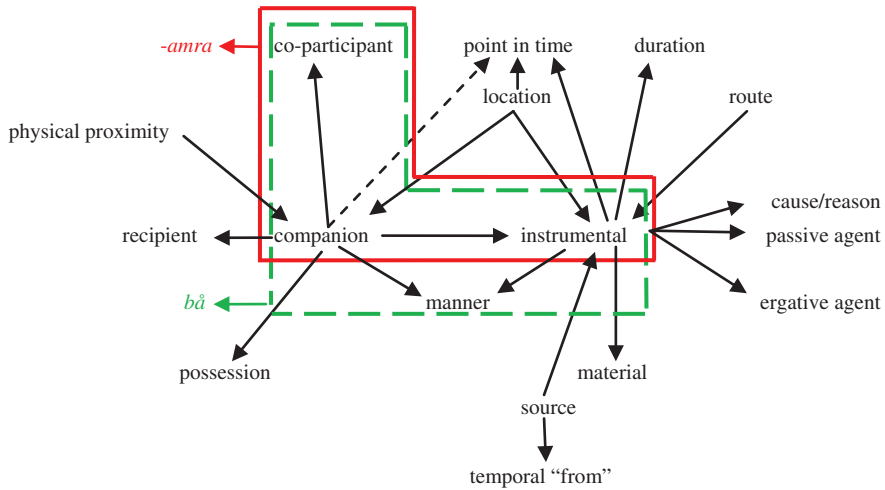
Figure 3: Functions of *-amra* and *bå* in Gilaki.

2.1.3 Mazandarani

Mazandarani belongs to the Caspian subgroup of north-western Iranian languages (Stilo 2016). In Mazandarani, the postposition *=je*, or *=ja*, and *=jā* as its allomorphs, encode polysemy in the instrumental-comitative domain. *-je* encodes instrument (4a), companion (4b), co-participant (4c), source (4d), recipient (4e), and location (4f):

(4) a. ***balu*=*je***   *binj*   *kέrd-ɛmi*
       hoe.GEN=INS   ice-paddy   sow.PST-1PL
       'We sowed the rice-paddy with the hoe'   [Stilo 2016: 8]

    b. ***kin*=*je***   *kār*   *hākārd-i*?
       who.GEN=INS   work   do.PST-2SG
       'With whom did you work?'   [Stilo 2016: 8]

    c. ***me*=*jā***   *davā*   *ken-ne*
       1SG.GEN-INS   fighting   do.PRS-3SG
       'He'll fight with me'   [Stilo 2016: 8]

    d. ***sahrā*=*ja***   *bemo*
       field.GEN-INS   came.PST.3SG
       'He came from the field'   [Stilo 2016: 8]

    e. *in   kāqez-re*   **ven=je**   *baresen*
       this paper-OBJ 3SG.GEN-INS send.IMP
       'Send this letter to her'   [Stilo 2016: 8]
    f. **cār-rā sar=je**   *pul*   *pidā hekārd-imi*
       intersection-INS money find do.PST-1PL
       'We found money at the intersection'   [Stilo 2016: 8]

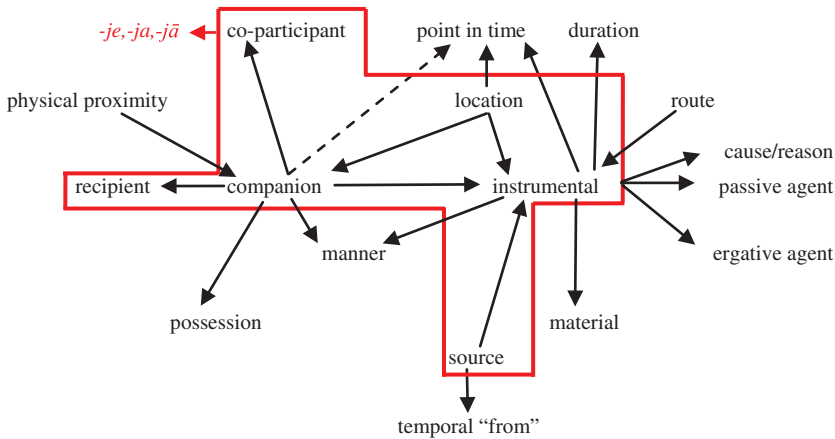Boundaries of *-je (-ja,-jā)* are shown in Figure 4.

Figure 4: Functions of *-je (-ja,-jā)* in Mazanderani.

As the map shows, Instrumental polysemy observes connectivity in Mazanderani.

2.1.4 Balochi

The data belong to the variety of Balochi spoken in Mari region in Turkmenistan which belongs to the western branch of Balochi (Jahani and Korn 2009: 637). Here, the preposition *gō* encodes instrument (5a), companion (5b), co-participant (5c), and recipient (5d):

(5)   a. *šēr-ā*   **gō yakk tīr-ē**   *kušt.*
         lion-OBJ INS one   arrow-INDF kill.PST.3SG
         'He killed a lion with one arrow.'   [Axenov 2006: 64]

b. ***gō wat*** *čunt swār u xizmatkār-ā burt.*
   INS REFL several rider and servant-OBJ take away.PST.SG
   'He took with him several riders and servants.'   [Axenov 2006: 136]

c. ***gō wat-ī mard-ā*** *dar būt-an pa gardišt-ā*
   INS REFL-GEN husband-OBL PVB be.PST-1PL for walk-OBL
   'I and my husband went out for a walk'   [Axenov 2006: 144]

d. *nasrō* ***gō mardum-ān*** *iččī na-gušt*
   PN INS man-PL nothing NEG-say.PST.3SG
   'Nasro did not tell the people anything'   [Axenov 2006: 71]

Boundaries of *gō* in Balochi are shown in Figure 5.
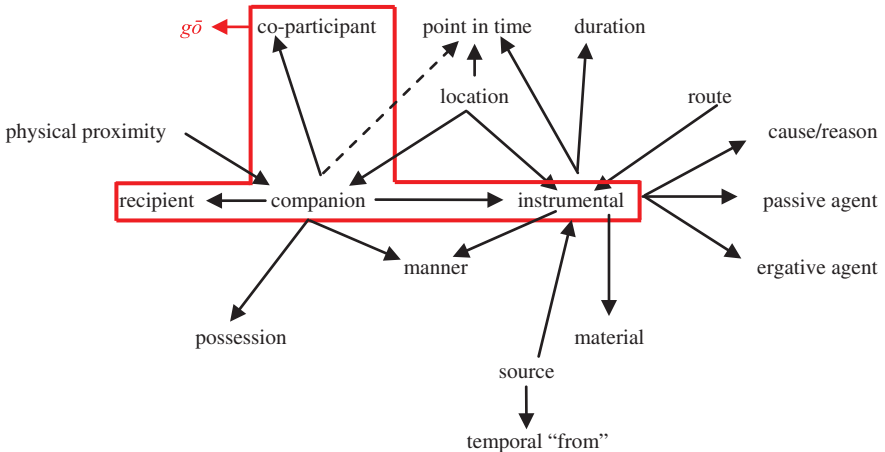

Figure 5: Functions of *gō* in Balochi.

The same preposition encodes instrumental-related functions in Koroshi, a language closely related to the southern varieties of Balochi. In Koroshi, *gō* encodes instrument (6a), companion (6b), and co-participant (6c):

(6) a. ***gō sīb-ā*** *be-ǰan-t mā ǰoġla-bār-ay sīnā*
     INS apple-OBL SBJV-hit.PRS-3SG in boy-PL-GEN chest.OBL
     'She should hit [one of] those boys in the chest with the apple'
                                                    [Nourzaei et al. 2015: 29]

b. *man* ***raxt=o***   ***lebās=om*** ***gō*** *telā=m*
  PN.1SG clothes=and clothes=1SG INS gold=1SG.PC
  me-d-ān=te
  IMP-give.PRS-1SG=2SG.PC
  'I will give my clothes along with my gold to you'
                 [Nourzaei et al. 2015: 48]

c. *goddā* ***go*** ***wad=et*** *bokān=om* *bīy-ā-on*
  then   INS REFL=2SG.PC want=1SG.PC SBJV-come.PRS-1SG
  lōg-ā
  house-OBL
  'Then I want to come home with you'   [Nourzaei et al. 2015: 149]

In both Balochi and Koroshi, the common polysemy pattern is for instrumental and companion functions to be coded alike.

2.1.5 Taleshi

Taleshi is spoken along the southern part of the Caspian Sea's west coast (Paul 2011: 15). The Talesh region is commonly divided into three general dialect areas: Northern, Central, and Southern (Paul 2011: 18). Instrumental marker in Northern Taleshi is different from that of central and southern Taleshi, thus we describe them separately.

In Northern Taleshi, the postposition *-anda* marks instrument (7a), companion (7b), co-participant (7c) location (7d), point in time (7e), and manner (7f):

(7) a. *du* *sa-ku* ***sərd-anda*** *be-š-a=bə*
   tree head-LOC ladder-INS PST-go-PTCP=AUX.3SG
   'He had gone up the tree by means of a ladder'   [Paul 2011: 162]
  b. *av* *fağat* ***bâla-nda*** *uma*
   3SG only child-INS came.PST.3SG
   'He came with only the child'   [Paul 2011: 162]
  c. *bâl-ân* *yad=anda* *pecxa-na-n*
   child-PL RECP=INS fight-IPFV-3PL
   'The children are fighting against one another'   [Paul 2011: 91]
  d. *mânə* *gužd-i* *ki´* ***ğâb-anda*** *süt-a=bə*
   SG.OBL meat-RCH REL pot-INS burnt-PTCP=AUG.3SG
   hârd-əm-e
   eat.PST-1SG-TR
   'I ate the meat that was burnt in the pot'   [Paul 2011: 192]

e. ***cušt-a***   ***vâxt=anda*** *must=anda*   *udu*   *tümü*
lunch-LNK   time=INS   yoghurt=INS dugh prepare
a-k-im
AUG-do-IPFV.1PL
'At lunchtime, we used to prepare dugh using yoghurt'

[Paul 2011: 238]

f. *kəluk* ***šuršur=anda*** *vua-na-y*
rain   vigour=INS   rain-IPFV-3SG
'It is raining heavily'   [Paul 2011: 180]

In central and southern Taleshi *-na* encodes instrument (8a), companion (8b), co-participant (8c), source (8d), manner (8e), and physical proximity (8f):

(8)   a. ***dâs-i-na***   *əm-i*   *žan-ə*,   ***ləs-i-na***   *əm-i*   *žan-ə*
        sickle-OBL-INS 3SG-OBL   hit-3SG stick-OBL-INS   3SG-OBL   hit-3SG
        'He hits him with a sickle, he hits with him a stick'   [Paul 2011: 162]

     b. *av*   *fağat*   ***bâla-na***   *uma*
        3SG   only   child-INS   came.3SG
        'He came with only the child'   [Paul 2011: 162]

     c. *a-e*   *âm-in*   *sava=šu*   ***ba-na***   *jam*   *â-kard=a*
        3-PL came-3PL basket=3PL.PC 3SG.IO-INS collect PVB-make.be=TR
        'They came (and) collected up the basket with him'   [Paul 2011: 163]

     d. *dâr-i*   ***bəni-na***   *daivar-u*
        tree-OBL   under-INS   passed-3SG.SBJV
        '... to pass under the tree'   [Paul 2011: 163]

     e. *a*   *žen-i*   ***narm-i-na***   *gaf*   *ža*
        DEM woman-OBL   soft-OBL-INS   speech   hit.TR
        'That woman spoke gently'   [Paul 2011: 78]

     f. *nu=š=a*   ***ducarxa=na***
        put=3SG.PC=TR   bicycle=INS
        'He put it on the front of the bicycle'   [Paul 2011: 78]

Figure 6 illustrates boundaries of *-na* (solid lines) and *-anda* (dashed lines).

    In all dialects of Taleshi, instrumental marker covers connected regions on the map, thus observes connectivity.
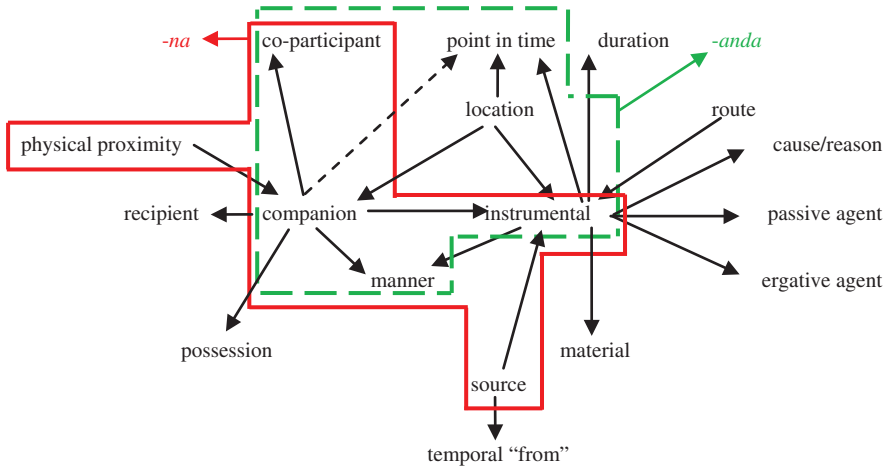
Figure 6: Boundaries of *-na* and *-anda* in Taleshi dialects.

2.1.6 Tati

Tati is a north-western Iranian language and is mainly spoken in some parts of Qazvin, Zanjan, and Azerbaijan provinces in Iran. The variety we describe its polysemy in the instrumental-comitative domain is Chali, a dialect of southern Tati (Yar-Shater 1969). In Chali, *-u* and *-endu* both encode instrumental polysemy. *-u* marks instrument (9a), companion (9b), source (9c), manner (9d), location (9e), and co-participant (9f). *-endu* encodes instrument (9 g), companion (9h), location (9i), and point in time (9j). In (14f), the postposition *-ku* is used instead of *-u; -ku* encodes companion for animate entities, and *-u* for inanimate ones. *-ō* and *-enda/-indu* are allomorphs of *-u* and *-endu* respectively.

(9)   a. ***darzan-ō***   *bedut-em*
      needle-INS   sew.PST-1SG
      'I sewed with a needle'   [Yar-Shater 1969: 120]
   b. *bōmenda*   ***qörōn-u***   ***ša:m-u***
      come.PST.3PL   Koran-INS   candle-with
      'They came with Koran and candle'   [Yar-Shater 1969: 121]
   c. ***deraxt-u***   *bečin*
      tree-INS   pick.IMP
      'Pick from the tree'   [Yar-Shater 1969: 119]

d. ***nāz-u***   *pāmibi*
   grace-INS get up.2SG
   'You were getting up with grace'   [Yar-Shater 1969: 121]

e. *čeme*   ***jǐf-u***
   1SG.OBL pocket-INS
   'In my pocket'   [Yar-Shater 1969: 120]

f. *ā*   *mardak ke*   ***šoma-ku*** *harf=eš*   *mi-zand*
   DEM man   COMP 2PL-INS   talk=3SG.PC IPFV-do.PST
   moallem-e
   teacher-COP.3SG
   'The man who was talking with you is a teacher'
                                       [Dabir-Moghaddam 2013: 1095]

g. ***tir-enda*** *menebe*
   beam-INS can't be done
   'It can't be done with beam[s]'   [Yar-Shater 1969: 123]

h. *bōmenda*   *dāyro*   *ye* ***zerno-ndu***
   come.PST.3PL tambourine and hautboy-INS
   'They came with tambourine and hautboy'   [Yar-Shater 1969: 123]

i. *ešta*   *tet-e*   ***vāzi-endu-ind***
   2SG.GEN girl-PL.DIR play-INS-COP.3PL
   'Your girls are in the game'   [Yar-Shater 1969: 121]

j. *šava*   ***šeš sāat ë nim-indu***
   evening six clock EZ half-INS
   'At 6:30 in the afternoon'   [Yar-Shater 1969: 123]

Figure (7) below shows boundaries of *-u* and *-endu* in Chali.

-u encodes more functions than *-endu*. In Tati, like Gilaki (Figure 4), two adpositions cover polysemy in the instrumental-comitative domain; they are synonymous but not completely.

2.1.7 Kurmanji (Northern Kurdish)

Kurdish is a cover term for the largest group of closely-related western Iranian dialects. There are three main subgroups of Kurdish: (1) Northern Kurdish is the most widely spoken variety of Kurdish, also known as Kurmanji. (2) Central Kurdish has two main subgroups, Sorani in northern Iraq up to the little Zab River, and Mukri in the adjacent Iranian province of Kordestan. (3) Southern Kurdish is found in the abutting areas of Iraq and Iran, from Khaneqin in Iraq
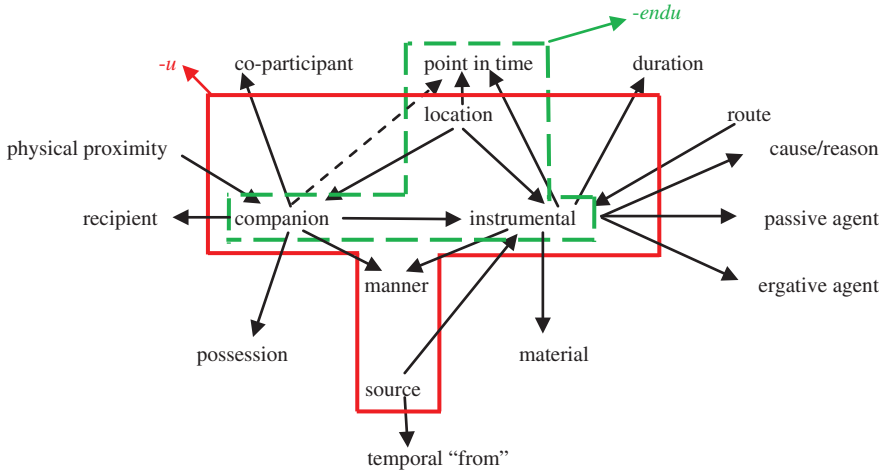
Figure 7: Boundaries of *-u* and *-endu* in Tati.

over to Kermanshah in Iran and down to the north of Al-Amra, Iraq, as well as in the Bijar region of Iran (McCarus 2009: 587).

In Kurmanji, the preposition *bi* encodes instrument (10a), manner (10b), point in time (10c), and location (10d), while the circumposition *bi ...... re* marks companion (10d), co-participant (10e), and possession (10f).

(10) a. *gošt* **bi** **kēra** *xwe* *birī*
      meat INS knife REFL cut.PST
      'He cut the meat with his own knife'

                                      [Bedir Khan and Lescot 1970: 246]

    b. *pēl-ēn*   *bay-ē*   *henik* **bi** **šermdarī** *derbas-ī*   *hundir-ē*
      wave-IZ.PL wind-IZ.M cool INS modesty pass-IZ.M inside-IZ.M
      oda   *te*   *di-bū-n*
      room.F 2SG.OBL IND-become.PST-3PL
      'Waves of cool breeze were passing modestly into your room'

                                            [Thackston 2006a: 21]

    c. *pištī* *rohelat-ē*   **bi**   **du**   **saet-an**
      after sunrise-OBL.F INS two hour-OBL.PL
      'Two hours after sunrise'   [Bedir Khan and Lescot 1970: 246]

    d. *pere*   **bi**   **bērik-a**   *xwe* *xist*
      money INS pocket-EZ.F REFL throw.PST
      'He put the money in his pocket'   [Bedir Khan and Lescot 1970: 246]

e. *me   hamû tişt-ên   xwe **bi** **xwe** **re**   hanî-n-e*
   1SG.OBL every thing-EZ.PL REFL ADP REFL ADP bring.PST-3PL-PRF
   'I have brought my whole things with me'   [Thackston 2006a: 152]

f. *ez   di-xwaz-im   bi sal-an   **bi** **te**   **re***
   1SG.DIR IND-want.PRS-1SG for year-PL.OBL ADP 2SG.OBL ADP
   bi-jî-m
   SBJV-live.PRS-1SG
   'I have wanted to live with you for years'   [Thackston 2006a: 217]

g. *lê   îrû   ne **bi** **min**   **re**   ye*
   from today NEG ADP 1SG.OBL ADP COP
   'It's not with me (in my possession) from today' [Thackston 2006a: 178]

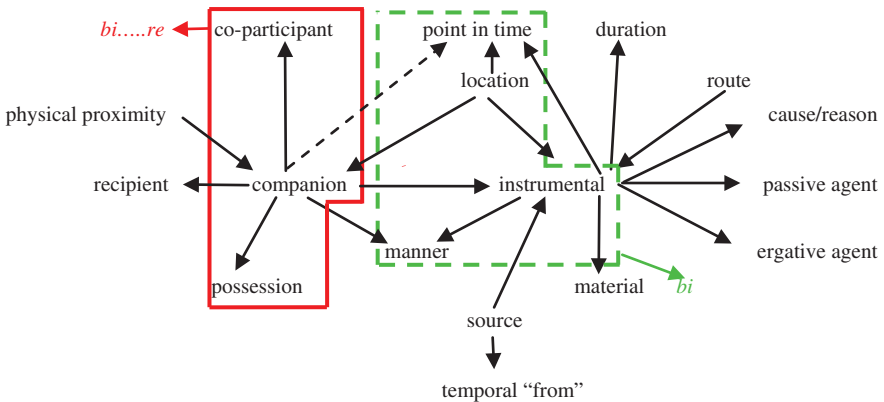Boundaries of *bi* and *bi ..... re* are shown in Figure 8:

Figure 8: Boundaries of *bi* and *bi.....re* in Kurmanji.

In Kurmanji, unlike other languages we have seen so far, instrumental and comitative are not marked by the same marker, though connectivity is observed.

2.1.8 Sorani (Central Kurdish)

In Sorani, two prepositions encode instrumental-related functions, but they are not synonymous: *ba* encodes instrument (11a), passive agent (11b), recipient (11c), and manner (11d). For some functions like manner, instrumental, and

recipient, *ba* can be used together with postposition *-awa*, thus forming a circumposition (11e). The other preposition, *lagal*, encodes companion (11h) and co-participant (11i). In (11b), *pē* is an absolute preposition variant of *ba* (McCarus 2009: 601).

(11)   a. *aw dirgā-ka=y*   ***ba klíl*** *bāz kird*
        he door-DEF=3SG.PC INS key open do.PST
        'He opened the door with a key'   [Dabir-Moghaddam 2013: 604]

     b. *hīč=it*   ***pē*** *nā-kir-e*
        nothing=2SG.PC INS NEG-do-PASS
        'Nothing can be done by you'   [Thackston 2006b: 167]

     c. *ama bí-ł-em*   ***ba to***
        DEM SBJV-say-1SG INS 2SG
        '(Let me) tell you that'   [Thackston 2006b: 23]

     d. ***ba pala*** *hāt*
        INS haste come.PST.3SG
        'He came hastily'   [Thackston 2006b: 178]

     e. *kič-aká* ***ba tūřaī-awa*** *wit=ī*
        girl-DEF ADP angrily-ADP say.PST=3SG.PC
        'The girl said angrily'   [Thackston 2006b: 178]

     f. *b=y-hen-a*   ***lagal xo=t***
        IMP=3SG.PC-bring-IMP.2SG COM   REFL=2SG.PC
        'Bring that with yourself'   [Thackston 2006b: 39]

     g. *aw piyāw-a-y ka* ***lagal to*** *qisa=y*
        DEM man-DEF-EZ COMP COM   2SG talk=3SG.PC
        a-kird   *māmostā-y-a*
        IPFV-do.PST teacher-EP-COP.3SG
        'The man who was talking with you, is a teacher'
                           [Dabir-Moghaddam 2013: 605]

Figure 9 below shows boundaries of *ba* and *lagal* in Central Kurdish.
     What we see here is a violation of connectivity; instrumental and recipient are coded alike while companion is coded differently. Besides, *ba* also encodes direction (11i) and experiencer (11h) which together with recipient are typical functions of dative markers (Haspelmath 2003).

(11)   i. *ču-n-**a** (=**ba**) **bāzār***
        go.PST-3PL-to market
        'They went to market'   [McCarus 2009: 605]
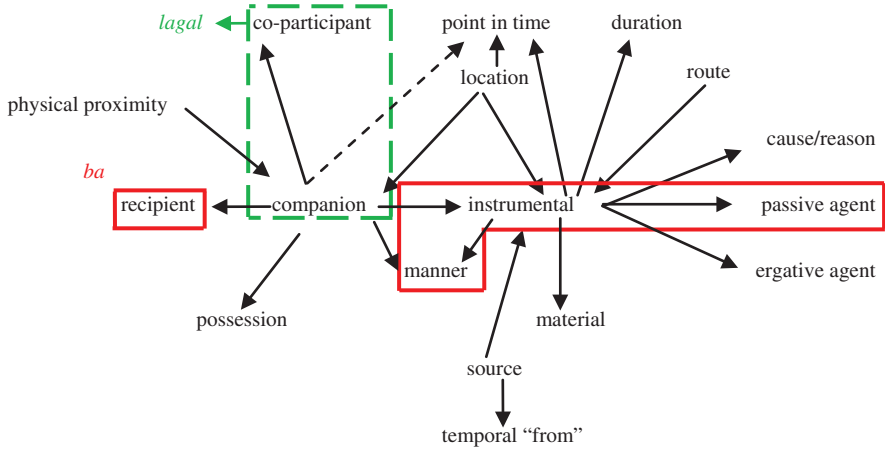
Figure 9: Boundaries of *ba* and *lagal* in Sorani.

h. **pē=m**   *xoš*   *bū*   *hāt-ī*
to=1SG.PC glad become.PST come.PST.2SG
'I'm glad you came (lit. It was nice to me that you came)'

[Thackston 2006b: 199]

In Sorani Kurdish, connectivity is not observed, and the instrumental marker also has dative functions. Actually, it is not clear whether the marker that encodes both dative and instrumental functions should be classified as an instrumental marker or as a dative one. Put differently, one marker realizes both instrumental and dative functions.

Here, *lagal*, takes companion and co-participant functions. The fact that it is a compound preposition consisting of *la* + *gal* shows its recency as a preposition.

2.1.9 Southern Kurdish

For Southern Kurdish, we describe two dialects which behave differently in their polysemy correlations: (1) the Kalhori dialect, which is spoken in the west and south-west of Kermanshah province, in the west of Iran, and (2) Kermanshahi Kurdish, which is a variety of Kurdish spoken in the city of Kermanshah.

2.1.9.1 Kalhori Kurdish

In Kalhori Kurdish, two prepositions encode instrumental related functions: *wa*, etymologically related to *ba* in Sorani, encodes instrument (12a), manner (12b), source (12c), and recipient (12d). It also encodes direction (12e), which together with recipient are typical of dative functions. *Wagard* encodes companion (12f), and co-participant (12g):

(12)   a. *me   dar-aga   **wa kelil** wāz   kərd-em*
      1SG door-DEF INS key   open do.PST-1SG
      'I opened the door with a key'   [Dabir-Moghaddam 2013: 649]

   b. ***wa   delaxwari** hāt-en*
      INS sadness   come.PST-3PL
      'They were sad when they came'   [personal interview]

   c. ***wa   Sanandaj** hāt-em*
      INS PN   come.PST-1SG
      'I came from the way of Sanandj'   [personal interview]

   d. *me   ketāw-aga   **wa Maryam** dā-m*
      1SG book-DEF   INS PN   give.PST-1SG
      'I gave the book to Maryam'   [Dabir-Moghaddam 2013: 649]

   e. *awāna la   Terān **wa Esfahān** montaqel bü-n*
      3PL   from PN   INS PN   move   become.PST-3PL
      'They were moved from Tehran to Esfahan'
                              [Dabir-Moghaddam 2013: 649]

   f. *ketāw-aga   **wagard xw**=**ad**   b-ār-a*
      book-DEF   COM   REFL=2SG.PC IMP-bring-IMP.2SG
      'Bring the book with yourself'   [personal interview]

   g. *piyā-ga   ke   dāšt **wagard-e ēwa** sohbat kərd   moʔalem-a*
      man-DEF REL IPFV COM-EZ   2PL   talk   do.PST teacher-COP.3SG
      'The man who was talking with you is a teacher'
                              [Dabir-Moghaddam 2013: 651]

Figure 10 below shows the map for Kalhori Kurdish.

    Kalhori Kurdish is like Sorani Kurdish in its polysemy correlation; in these two varieties of Kurdish connectivity is not observed and one marker encodes instrumental and dative functions.

2.1.9.2 Kermanshahi Kurdish

Kermanshahi Kurdish is different from Kalhori Kurdish in its polysemy pattern in that only the preposition *wagard* encodes core instrumental functions:
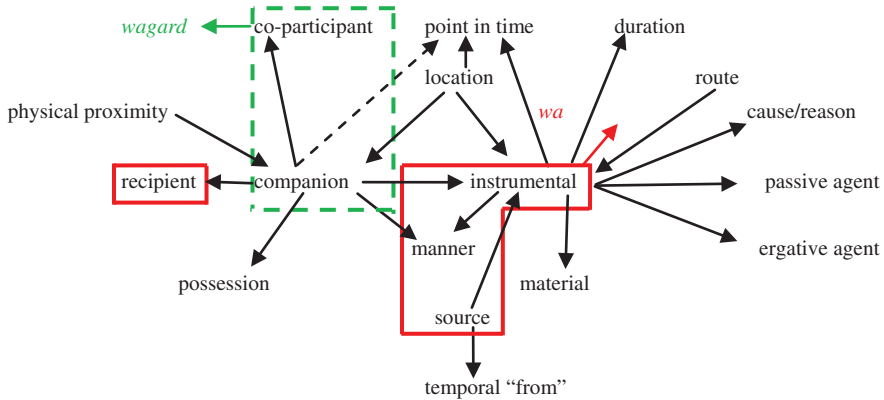
Figure 10: Boundaries of *wa* and *wagard* in Kalhori Kurdish.

(13) a. *me* ***wagard-e kelil*** *dar-aga* *wā* *kərd-em*
       1SG INS-EZ key door-DEF open do.PST-1SG
       'I opened the door with a key' [Dabir-Moghaddam 2013: 650]

    b. *Nāser* ***wagard-e minā*** *hāt*
       PN INS-EZ PN come.PST.3SG
       'Naser came together with Mina' [personal interview]

    c. *Ali* ***wagard-e rafiq-aga=y*** *merāfa* *kərd*
       PN INS-EZ friend-DEF=3SG.PC fight do.PST.3SG
       'Ali fought with his friend' [personal interview]

The map for Kermanshahi Kurdish is shown in Figure 11 below.

The situation we see for Kermanshahi Kurdish is interesting, since, unlike other Kurdish varieties (Sorani and Kalhori), connectivity is observed and instrumental and companion are coded alike, as is the case for new Persian (Figure 2). We assume it is due to the influence of Persian on the Kurdish variety spoken in Kermanshah that the functionality in instrumental domain observes connectivity. In Kermanshah, Kurdish and Persian are in intensive contact and it seems highly possible that the polysemy pattern we see for this variety of Kurdish is due to the influence of Persian.

2.1.10 Gorani

Gorani is spoken in western part of Kermanshah province in the west of Iran (Mahmudveysi et al. 2012: 1). While it is nowadays only spoken in a small
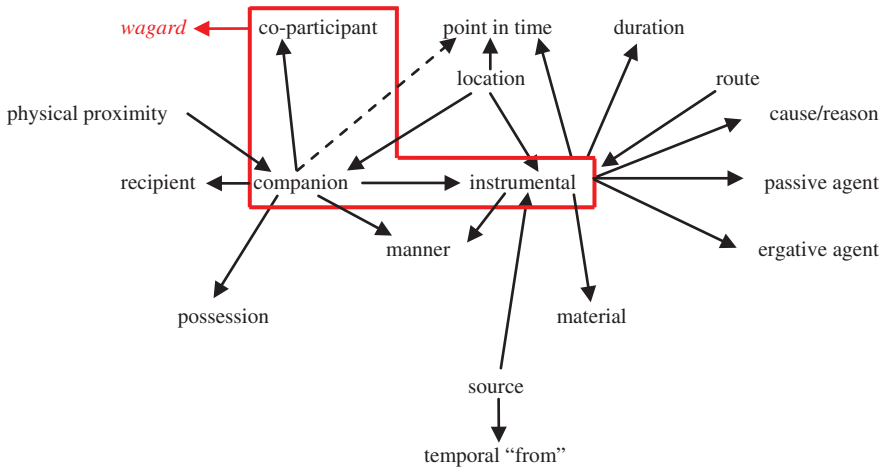
Figure 11: Boundaries of *wagard* in Kermanshahi Kurdish.

number of villages, it is assumed that it was formerly prevalent in a larger area. The variety of Gorani that is investigated here is Gawrağui (Mahmoudveysi et al. 2012). In Gorani, two prepositions encode instrumental related functions: *wa* marks instrument (14a), location (14b), manner (14c), point in time and companion (14d), and recipient (14e). In addition to recipient, it also encodes other functions that are typical of dative markers including direction (14f), and experiencer (14g). *(wa)gard* encodes companion (14h), and co-participant (14i). These two adpositions often occur with the particle=ay, thus form circumpositions (Mahmoudveysi et al. 2012: 55).

(14)   a. ***wa   ča***   *ma-š-ī?*
        INS   what   IND-go.PRS-2SG
        'With what (kind of transportation) do you go?'
                                    [Mahmoudveysi et al. 2012: 52]

      b. ***wa   ka=ya***   *ma-w-in*
        INS   house=POST   IND-COP-3PL
        'They are at home'   [Mahmoudveysi et al. 2012: 52]

      c. ***wa   lafz- e***   ***šīrīn***   *wa   merabānī   mard   kam*
        INS   speech-EZ   sweet   INS   kindness   man   less
        ni-ma-w(u)   *či*   *mērd-ān*
        NEG-IND-become.PST   like   man-PL
        'Through sweet speech, with kindness, a man does not make less of his manhood'   [Mahmoudveysi et al. 2012: 111]

d. ***wa šaw   wa šawdīz*** *biya,*   *asp-aka=š*   *ānakay*
   in   night INS PN   COP.PST horse-DEF=3SG.PC belong
   xasraw   wa dizīwa
   PN   in   secret
   '(It was) nighttime (and) she was with Šabdiz, her horse, which belongs
   to Xasraw. (She goes) in secret'   [Mahmoudveysi et al. 2012: 109]

e. *min* ***wa Ali*** *nān*   *ma-t-im*
   1SG INS PN bread IND-give.PRS-1SG
   'I give Ali the bread.'   [Mahmoudveysi et al. 2012: 52]

f. *pīyā=y(č)*   *ma-š-u=**wa***   ***bān*** *āsyāw- aka*
   man=ADD IND-go.PRS-3SG=INS   up   mill-DEF
   'The man also goes up on the mill'   [Mahmoudveysi et al. 2012: 58]

g. *āyā min* ***wa dił**=**im***   *na-w*   *maǰbūr-īm*
   if   1SG INS heart=1SG.PC NEG.SBJV-COP must-1SG
   bi-san-m=iš   *hā*
   SBJV-buy.PRS-1SG=3SG.PC NA
   'If I do not like it, I have to buy it'   [Mahmoudveysi et al. 2012: 56]

h. *xozgā min āyamīzāya*   *biyātā-yim*   *ā*   *tūta=y* ***gard***
   I wish 1SG human.being be.PST.SBJV-1SG DEM dog=EZ COM
   gala**=**m**=**a   *bi-kuštā*
   flock=1SG.PC=DEM SBJV-kill.PST.SBJV
   'If I only were a human being, I would have killed that dog with the
   flock...'   [Mahmoudveysi et al. 2012: 42]

i. *ha(r) dük=šān*   *tay qarār* ***wa gard*** *yak=ay*   *ma-was-in*
   every both=3PL.PC contract COM   one=POST IND-close.PRS-3PL
   'Both of them make a contract together'
                                              [Mahmoudveysi et al. 2012: 96]

It should be noted that in just two examples in the grammar the use of *wa* for
encoding companion was found, while for other occurrences of the companion
wagard was used, which shows that the language is moving towards non-
connectivity in the instrumental-comitative domain. Also, *wagard* is a com-
pound preposition formed by adding *-gard* to *wa*. Figure 12 below shows bound-
aries of *wa* and *wagard* in Gorani.

    We might say that Gorani is in transition from languages like Persian which
observe connectivity to languages like Sorani Kurdish which do not. In other
words, Gorani is an intermediate stage between connectivity languages and non-
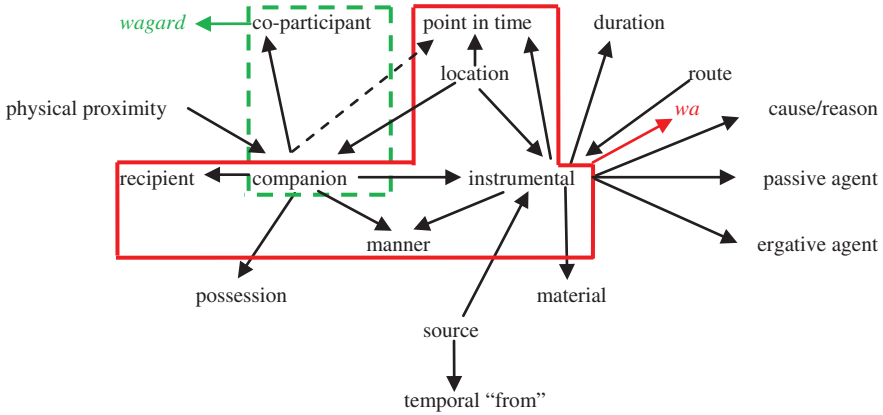connectivity ones.

Figure 12: Boundaries of *wa* and *wagard* in Gorani.

2.1.11 Hawrami

Hawrami is a Gorani dialect and probably the most archaic and best preserved of the group (MacKenzie 1966: 4). In Hawrami, as we have seen before with some other languages, two prepositions encode instrumental-related functions: *ba (pana, pə* as absolute preposition forms of *ba)* functions as instrument (15a), recipient (15b), point in time (15c), and manner (15d). It also marks direction (15e) which together with recipient are typical functions of dative markers. *Čani* is the other preposition encoding companion (15f) and co-participant (15g):

(15) a. *das=eš   šɪt   wa ba fotewi   nāyāb*
        hand=3SG.PC   wash.PST and INS towel-EZ fine
        asari-e=š
        dry.PST-3PL=3SG.PC
        'He washed his hands and dried them on a fine towel'
                                              [MacKenzie 1966: 68]
     b. *dā=š   ba hama-y u ad=εš*
        give.PST=3SG.PC INS PN-OBL a mother=3SG.PC
        'He gave it to Hama and his mother'   [MacKenzie 1966: 53]
     c. **ba zārola-I**   har ba pāy pāwīruā lu-ene   rā-na
        INS childhood-OBL ever INS foot-EZ bare   go.PST-1SG road-LOC
        'In (my) childhood I used to always walk about barefoot'
                                              [MacKenzie 1966: 61]

d. **ba ayš-u-noš** i   dıniā-y-a   b-ar-me   sar
   INS pleasure   ADP world-EP-ADP SBJV-bring.PRS-1PL head
   'Let us live out this life in pleasure'   [MacKenzie 1966: 62]

e. *ǰa   duari-aka   di-ane   panj šiš suār=em*
   from window-DEF look-1SG five six horsemen=1SG.PC
   *di-e,   řu   **ba egay** ene*
   see.PST-3PL face INS here come.PST.3PL
   'I looked through the window and saw five or six horsemen coming in
   this direction'   [MacKenzie 1966: 61]

f. *am(ən) **čani**=t   m-a-w*
   1SG   COM=2SG.PC IPFV-come.PRS-1SG
   'I will come with you'   [Dabir-Moghaddam 2013: 798]

g. *piyay-wa q(ə)se=t   **čani** kar-e   moallem-an*
   man-INDF talk=2SG.PC COM do-IPFV teacher-COP.3SG
   'The man who was talking with you, is a teacher'
                                     [Dabir-Moghaddam 2013: 799]
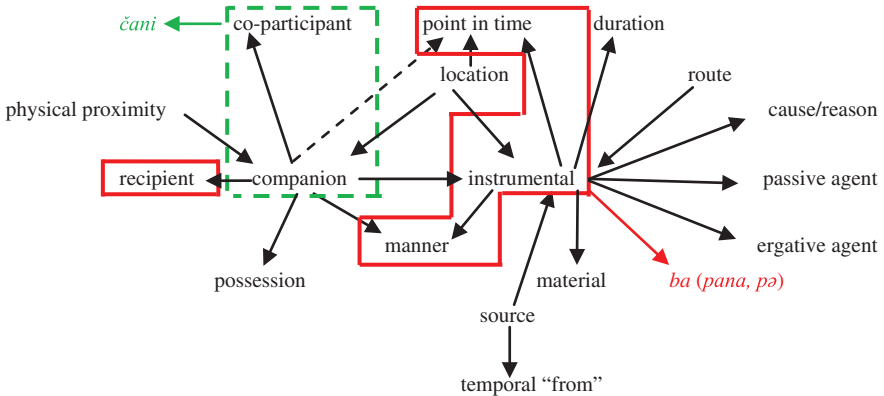
The map for Hawrami is given below:

Figure 13: Boundaries of *ba (pana, pə)* and *čani* in Hawrami.

In Hawrami, like Sorani Kurdish, Kalhori Kurdish, and Gorani, connectivity is
not observed, and one marker has both instrumental and dative functions.

2.1.12 Tat

Tat refers to a group of closely related Iranian languages spoken in Azerbaijan
and Daghestan. They are classified as the south-western branch of Iranian

languages. The dialect that we describe its polysemy pattern in the instrumental-comitative domain is Jewish Tat, or Juhuri, described in detail by Authier (2012). In Juhuri Tat, the instrumental marker is a circumposition preceded by both the locative e=at the left of the phrase, and the dative =(r)e at the right of the phrase followed by *voz*, thus forming *e....(r)evoz/e....ovoz*. It marks instrument (16a), companion (16b), co-participant (16c), cause (16d), duration (16e) and manner (16f):

(16) a. *kuk **e**=**korde**=**revoz** bur-ri   u=re   qoz-ä-qoz.*
          boy LOC=knife=INS   cut-PST 3SG=DAT nut-to-nut
          'With a knife, the boy cut the nuts one by one'   [Authier 2012: 99]

      b. *qärevoş=iş   **e**=**yu**=**revoz**=**i***
          servant=ADD   LOC=DIST=INS=COP.3SG
          'The servant is also with her'   [Authier 2012: 58]

      c. *i   **e**=**yu**=**revoz** vepiçi-rebu=ho   jovon-e   pehlivon*
          this LOC=DIST=INS wrestle-PPRF=NMLZ young-ATTR hero
          duxder bi-re=bebey!
          girl   be-PTCP=EVID
          'This young hero who had fought with him was actually a girl!'
                                                                  [Authier 2012: 227]

      d. ***e**=**i**=**revoz**   u-ho heçi dulanmiş bi-rembir-üt.*
          LOC=this=INS 3-PL so   living   be-IPFV.PST-3PL
          'Thanks to this, they lived somehow.'   [Authier 2012: 115]

      e. *u   **e**=**meh-ho**=**revoz**   bi-rembu   e=dih.*
          3SG LOC=month-PL=INS be-IPFV.PST LOC=village
          'He was in the village for months.'   [Authier 2012: 110]

      f. *duxder-le **e**=**tekeburi**=**revoz** johob   do.*
          girl-DIMIN LOC=pride=INS   answer give.PST
          'The little girl replied proudly.'   [Authier 2012: 110]

The map for Juhuri Tat is given below.

In Tat, like most languages we have seen so far, connectivity is observed, and instrumental and companion functions are encoded in the same way.

The range of functions of instrumental marker demonstrates similarities as well as differences across Western Iranian languages. In the next section, we discuss this in detail and the consequences it has for semantic maps.
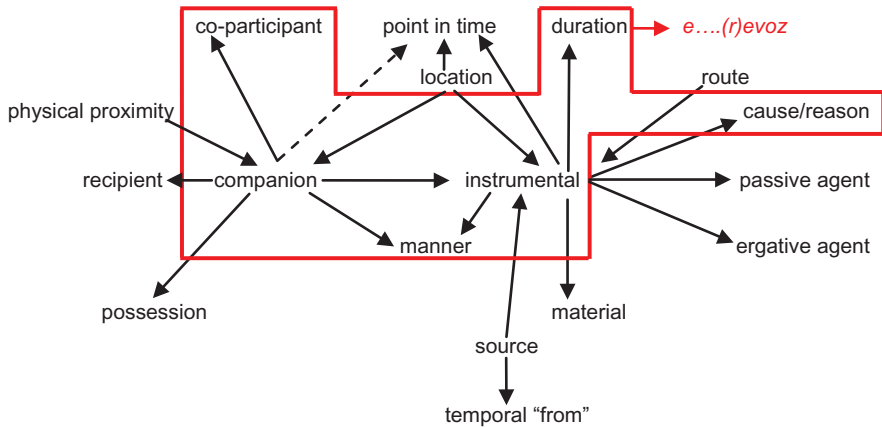
Figure 14: Boundaries of *e……(r)evoz* in Tat.

3 Results and findings

The data from new Western Iranian languages show that there exist two polysemy patterns for instrumental-comitative domain:

(1) Instrumental and companion, the core instrumental functions, are encoded with the same marker. This is the case with the majority of languages including New Persian and Bakhtiari (Figure 2), Gilaki (Figure 3), Mazandarani (Figure 4), Balochi and Koroshi (Figure 5), Taleshi (Figure 6), Tati (Figure 7), Kermanshahi Kurdish (Figure 11), and Tat (Figure 14); these languages observe connectivity, and instrumental and dative markers are different.

(2) Instrumental and companion are encoded differently. Kurmanji Kurdish (Figure 8), Sorani Kurdish (Figure 9), Kalhori Kurdish (Figure 10), Hawrami (Figure 13), and Gorani (Figure 12) follow this pattern. Apart from Kurmanji, other languages in group (2) do not observe connectivity; one marker encodes both instrumental and dative functions and a different marker encodes companion. It is not clear whether the marker encoding both dative and instrumental functions should be considered as an instrumental marker or a dative marker. We might say instead that one marker encodes both instrumental and dative related functions. The existence of non-connectivity in these languages poses exceptions to the connectivity hypothesis. According to Narrog and Ito (2007: 289), this happens at a point when the old morpheme has become fairly broad in its semantic range–therefore opaque to the speakers of the language, and a newer morpheme

comes in, expressing the semantic function in question more unambigu-
ously. It seems plausible to hypothesize that for the non-connectivity
languages in (2) the same scenario happens, that is, the general oblique
marker, the one encoding both instrumental and dative related functions,
becomes too broad in its semantic range and a new marker, the one
encoding companion and co-participant, comes in and compensates for
the opacity in the semantic range of the general oblique marker. This
hypothesis is triggered by the fact that the companion marker in group
(2) is a compound preposition (bu it's a circumposition in Kurmanji, com-
prising of postposition -re plus the instrumental marker bi), thus a recent
one, while the general oblique marker is a simple preposition. In other
words, we might say we deal with a grammaticalization cycle in which new
markers compensate for the opacity in the range of functions the old
markers encode. However, lack of diachronic data for non-connectivity
languages can pose problems for this argumentation. Needless to say,
this situation does not occur in languages of type (1) plus Kurmanji, simply
because different markers realize polysemy in instrumental and dative
domains, thus the semantic range of markers –instrumental in our case –
is not too broad for a new marker to come in compensating for opacity in
the instrumental-comitative domain.

We refer to languages in (1) as connectivity type, and those in (2) as non-
connectivity type. But note that in spite of its labeling as a member of pattern
(2), that is, different markers for instruments and comitatives, Kurmanji falls into
the connectivity type. Between these two types, transitory states can be seen and
languages like Gorani (Figure 12) seemingly represent this transition; the old
morpheme is giving its place to a new marker with companion and co-partici-
pant functions. This hypothesis is triggered by the fact that only two uses of wa
(the old morpheme) for companion function were attested in the whole gram-
mar, while for all other occurrences of companion function the new morpheme
wagard was attested. In other words, Gorani is in the process of shifting from
connectivity type to non-connectivity type. Another explanation for non-connec-
tivity in Gorani, besides semantic opacity proposed above, can be attributed to
contact-induced matters, since the language is in heavy contact with Kalhori
Kurdish (Figure 10), Hawrami (Figure 13), and to a lesser extent Sorani Kurdish
(Figure 9), all of them belonging to the non-connectivity type. The effect of
contact on the change of type in under-investigated languages can also be
traced in the Kurdish variety spoken in Kermanshah (Figure 11). Here, the
language has shifted from non-connectivity type to connectivity type, and it is

presumably due to the presence of the heavy contact situation between Persian and Kurdish in Kermanshah.

The data clearly reveal that these two types are not stable and languages are shifting from one type to another mainly as a result of contact-induced matters. However, since Persian is the official language of Iran and the sole medium of education, the change from non-connectivity type to connectivity type is more likely to occur for those language varieties spoken in Iran.

There exist also areal polysemy patterns in the instrumental-comitative domain. Polysemy patterns are somehow unified in some areas; in Kurdish-speaking areas, for instance, in the west of Iran/north-east of Iraq, where also Hawrami and Gorani are spoken, there is a strong tendency towards non-connectivity. In languages around the Caspian Sea including Gilaki, Mazandarani, Taleshi, and Tati, the main polysemy pattern is the connectivity one. This is also true for Balochi and Koroshi. It is highly possible that that the main polysemy pattern for so-called south-western Iranian languages is also of the connectivity type; this is confirmed by the data from New Persian, Bakhtiari, Tat, and Delvari (see the data in Haig and Nemati 2013).

Among linguists, two different positions are held regarding the directionality of meaning change between instruments and companions (see Narrog 2010: 240 for an overview). Interestingly, the data from Western Iranian languages yield different developments for instrumental and companion markers in type (1) and type (2) languages. The instrumental marker in Persian gives us insights about the directionality of meaning change from companion to instrument; the companion marker *abāg* in Middle Persian has extended its meaning to encode instrumental and other related functions in New Persian (Figure 2). For languages in type (2), at least for Kalhori and Gorani, the companion marker is formed by adding an element to the general oblique marker (Kalhori, "*wagard*" > "*wa*" + "*gard*") which encodes both instrumental and dative functions.

The question that remains unanswered is how to deal with the functionality of markers in type (2) languages on the map? Here, a marker has both instrumental related functions and dative ones. So, do we need to add some lines to the instrumental semantic map? Or to the dative map? It is true that the map proposed by Narrog is more developed than the one existing for dative functions (Haspelmath 2003). However, one cannot say for sure which path to take. Interestingly, there is a link between dative and instrumental functions on the map, "recipient", which is the prototypical dative function (Newman 1996: 82). It can be assumed that through "recipient" function, other functions in the dative semantic map be added to the instrumental map. Further cross-linguistic study is indeed required to have such changes on Narrog's map.

4 Summary

The present paper aimed at showing polysemy patterns in the instrumental-comitative domain of a number of Western Iranian languages. The data showed that two polysemy patterns were attested; (1) instrumental and companion were coded alike. (2) They were coded differently. These two polysemy patterns are productive in Western Iranian languages, with the first one being more attested. The interesting point was the fact that languages are shifting/have shifted between these two types mainly as a result contact-induced matters. The presence of non-connectivity in type (2) languages can be attributed to factors such as contact, diachrony, and semantic opacity. How to deal with dative functions that are linked to instrumental related functions on the map requires further cross-linguistic study.

Abbreviations

ACC	accusative
ADD	additive
ADP	adposition
ADVLZ	adverbilizer
ATTR	attributive
AUG	augment
AUX	auxiliary
CAUS	causative
CLF	classifier
COM	comitative
COMP	complementizer
COP	copula
DAT	dative
DEF	definite
DEM	demonstrative
DIMIN	diminutive
DIR	direct
DIST	distal
EP	epenthesis
EVID	evidentiality
EZ	ezafeh

F	feminine
GEN	genitive
IMP	imperative
IND	indicative
INDF	indefinite
INF	infinitive
INS	instrumental
IO	indirect object
IPFV	imperfective
LOC	locative
M	masculine
NA	not analyzed
NEG	negative
NMLZ	nominalizer
OBJ	object
OBL	oblique
PASS	passive
PC	personal clitic
PL	plural
PN	proper noun
POST	postposition
PPRF	pluperfect
PROX	proximal deixis
PRF	perfect
PRS	present
PST	past
PTCP	participle
PVB	preverb
RCH	relative clause head marker
RECP	reciprocal
REL	relativizer
REFL	reflexive
SBJV	subjunctive
SG	singular
TOP	topic
TR	transitive

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