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# Modelling polysemy and categorial ambiguity in a constructional family

## The case of agentive compounds in Persian

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In this paper we analyse a family of compound constructions in Persian that show two interesting properties: (1) they split into two semantic patterns, human agent noun and instrument noun, and (2) they display categorial ambiguity between noun and adjective. The compounds in question, which are formed with the verbal stem *-yāb* ‘find’, are collected from diachronic and synchronic corpora and analysed in the framework of Construction Morphology (Booij 2010). We argue that the instrumental pattern is an innovation under the influence of loan-translated English instrument nouns. This pattern dovetailed with a much older morphological construction for human agent nouns. This raises questions about the relation between the two constructions in the contemporary speaker’s lexicon. For the dual functionality of the words as nouns and adjectives, we argue that it can be understood as a second order schema (Booij & Masini 2015) or sister construction (Jackendoff & Audring 2019, 2020), whereby no precedence is ascribed to either of the two patterns.

**Keywords:** Construction Morphology, polysemy, compound, partial motivation, sister constructions, second-order schemas, Persian

### 1. Introduction

Persian, like other Indo-European languages, makes extensive use of compounding for word-formation (Zomorrodian 1970: 194). One highly productive pattern in Persian is the compound type [ $xv_{PRS}$ ] (Tabataba’i 2014) that we see in words such as *bāzār-yāb* (lit. ‘market-find’, ‘marketer’), *gitār-zan* (lit. ‘guitar-hit’, ‘guitarist’), *māhi-gir* (lit. ‘fish-catch’, ‘fisherman’), *dast-band* (lit. ‘hand-fasten/close’, ‘bracelet’), *bār-band* (lit. ‘load-fasten’, ‘carrier’), *bār-keš* (lit. ‘load-pull’, ‘porter’), *āš-paz* (lit. ‘pottage-cook’, ‘chef’). In such compounds, a non-verbal element

(often a noun, sometimes an adjective or adverb) is combined with the present stem of a verb<sup>1</sup> to form a new noun or adjective, which makes these compounds formally as well as semantically exocentric. Data from the diachronic Farhangyar corpus<sup>2</sup> shows that such compounds have existed since the beginning of the 3rd century AH/ 9th AD.<sup>3</sup> They are the subject of an extensive linguistic literature (see e.g., Shariat 1970; Khanlari 1973; Mashkur 1989; Kalbasi 1992; Nobahar 1993; Khayyampour 1993; Soltanigard Faramarzi 1997; Anvari & Ahmadi Givi 1999; Tabataba'i 2003a, 2014; Sadeghi 2004; Meshkatoddini 2005; Lazard 2005; Vahidian Kamyar & Omrani 2006; and Khorma'i 2008). In this paper, we discuss the subconstruction [X-*yāb*], with the present stem of the verb *yāftan* 'to find' as the right-hand element, addressing two properties that are of special interest from a theoretical point of view. First, the compounds in question split into two distinct semantic patterns, human agent noun and instrument noun.<sup>4</sup> Second, they – like all [xv<sub>PRS</sub>] compounds and some derivational patterns in Persian – show categorial ambiguity between adjective and noun. Both characteristics raise questions about the structure of the constructional family formed by these compounds, and the relations among its members. These issues are addressed within the framework of Construction Morphology (CxM, Booij 2010), which offers helpful modelling tools for both the semantic and the categorial variation.

The empirical basis of this study is a collection of all the compounds ending in *-yāb* in the diachronic Persian Farhangyar corpus, the synchronic corpora

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1. Persian verbs have two stems: the present stem and the past stem, both of which are used in word formation. The verb *yāftan* 'to find' discussed in this study has the present stem *yāb* and the past stem *yāft*.

2. The *Diachronic Persian Farhangyar Corpus*, an offline corpus curated by the Academy of Persian Language and Literature, is the only comprehensive diachronic corpus of Persian. It contains literary works from the 3rd century AH/ 9th AD to the present century. For further information on this corpus, see Khatibi (2007) and Sadeghi (2013).

3. The abbreviation AH stands for Latin *Anno Hegirae*, corresponding to AD 622, marking the beginning of the Muslimic lunar calendar. Prior to the adoption of the Anno Domini timeline by many Islamic countries and the designation of the Hegira solar calendar in Iran, the Hegira lunar calendar was used across the Islamic states. The Persian language corpora make use of various calendars. For ease of reference, all dates are given according to both the Hegira lunar calendar and the Anno Domini calendar.

4. Patient-oriented meanings are rare; an example is *kamyāb* (lit. 'little-find') 'rare'. Such cases are not considered in this study. It should be noted that the dual function of noun and adjective, discussed in Section 5, is limited to agent nouns and agentive adjectives and is not found in the patientive compounds (which are adjectival).

of the Persian Linguistic Database,<sup>5</sup> the Bijankhan corpus,<sup>6</sup> and the Persian Wikipedia pages.<sup>7</sup> Additional words were collected from the Zansou Reverse Dictionary (Keshani 1993). Neologisms were explored with the help of a Google search. Altogether, the search yielded 260 unique types (see Appendix for the full list). All examples throughout this article are given in traditional Iranological transcription.

The paper is divided into six sections. After this opening section, we give a brief introduction to Construction Morphology. Section 3 describes the semantic variation in the compounds in question. Section 4 organizes the various patterns into schemas and subschemas and discusses the issue of constructional polysemy. Diachronic observations help to clarify the origin of the instrument schema and the special place it occupies in the family. In Section 5 we discuss the ambiguity between nouns and adjectives and propose an analysis in terms of sister relations within the constructional network. The study wraps up with a conclusion.

## 2. Construction morphology

Construction Morphology (CxM, Booij 2010) is part of the Construction Grammar family of theories (see Hoffmann & Trousdale 2013 for an overview) but caters specifically to morphology. CxM takes a word-based approach to morphological analysis: the internal structure of complex words, i.e., the identity of their components and the syntagmatic relations between them, are understood via systematic correlations with other words (Booij 2009). As a consequence, the word is considered the smallest unit of analysis as well as the smallest linguistic sign (i.e., a conventional pairing of form and meaning). The form of a word consists of phonological, morphological and syntactic properties, and its meaning has a semantic, a pragmatic and a discourse-functional dimension (Figure (1)):

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5. The *Persian Linguistic Database* (PLDB) is the first online database containing contemporary (modern) Persian data from various corpora (<http://pldb.ihcs.ac.ir>).

6. The *Bijankhan corpus* is a collection of daily newspapers and other texts (<http://dbrg.ut.ac.ir/Bijankhan>).

7. <http://fa.wikipedia.org>

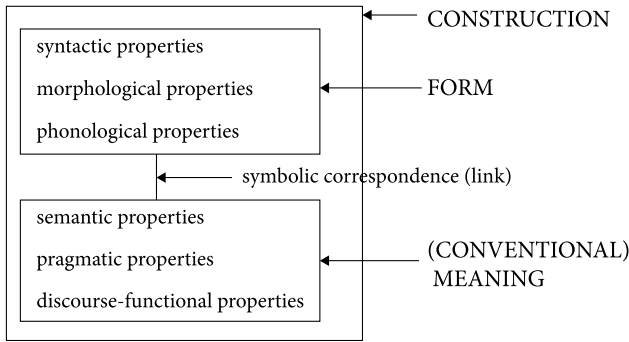


Figure 1. A construction in CxM (Croft 2007: 472)

Grammatical rules are expressed in the form of *constructional schemas*. For instance, the schema generalizing over Germanic endocentric right-headed compound nouns is represented as follows (Booij 2010: 17):

$$(1) \quad \langle [[a]_{Xk} [b]_{Ni}Nj \leftrightarrow [SEM_i \text{ with relation } R \text{ to } SEM_k]_j \rangle$$

In this schema, the variables *a* and *b* represent phonological or orthographic structure. The variable *X* indicates an unspecified syntactic category, while *N* stands for ‘noun’. The lower-case variables *i*, *j* and *k* co-index the corresponding formal and semantic properties of the schema. The arrow indicates the bilateral relation of form and meaning, and the angled brackets indicate that this relation is conventionally entrenched in the mental lexicon of the speaker.

Schemas are part of the lexicon, which is understood as a highly structured environment (Booij 2012: 344) containing both fully specified words and schemas of various degrees of abstractness. Schemas are organized hierarchically. For example, the schema in (1) is a subschema of the general schema for Germanic right-headed compounds, which can be expressed as in (2):

$$(2) \quad \langle [[a]_{Xk} [b]_{Yi}Yj \leftrightarrow [SEM_i \text{ with relation } R \text{ to } SEM_k]_j \rangle$$

This schema is the most abstract generalization that can be made over endocentric, right-headed compounds. The category variable *Y* and the co-index *i* say that all compounds inherit categorial and semantic properties of the right-hand constituent by default. Subschemas serve to describe specific properties of subsets of compounds. For example, the category variable of the right-hand constituent, which is underspecified and represented by *Y* in (2), can be replaced by *N*, *A* and *V* for nominal, adjectival and verbal compounds, respectively. The specific properties of subschemas can also include their degree of productivity; for example, verbal compounds are less productive than nominal compounds in Germanic (see also Section 4.4 below).

The compounds discussed in the present paper are exocentric and differ from the endocentric schema in two respects. First, the syntactic category of the compound – in this case noun or adjective – does not correspond to the category of the right-hand member, which is a verbal stem, and it may fail to correspond to the category of the left-hand member as well. Semantically, the output schema contains information not found in the meaning of the parts, e.g., the specification that the compound denotes a person or instrument (see the schemas in (5) below). In the schematic representation, non-compositional meaning is characterized by the absence of an index, as it is not linked to any part of the semantic structure of the compound members.

Schemas have two functions. When productive, they can be used to generate new forms by instantiating the variables with new lexical material, very much like a rule in traditional grammar. The relevant mechanism is *unification* (Shieber 1986; see Jackendoff & Audring 2020: Chapter 2 for an elaboration of the procedure in morphology). In addition, all schemas – whether productive or not – serve as ‘mother’ nodes for their listed instances in the lexical network, that is, they connect all words with the relevant structure stored in the speaker’s memory. This is a special type of relation, as the words in question are not generated by the schema; they already exist. From the perspective of existing words, the schema has a *motivating* function by generalizing over its ‘daughter’ instances and capturing what is systematic about their structure (Booij 2017; Jackendoff & Audring 2020: Chapter 3; the notion of motivation goes back to de Saussure 1959 [1915]: 131). For example, the English words *writer* and *mixer* are motivated by the  $[V-er]_N$  schema while the words *brother* and *butter* are not, despite the similarities in phonology. Note that motivation can be partial (Booij & Audring 2018); hence, words like *butcher* and *carpenter* might be associated with the  $[V-er]_N$  schema as they fit the pattern in phonological and semantic terms, although not morphologically. We will return to the notion of partial motivation in Section 4.4.

In addition to vertical (‘mother-daughter’) relations, the theory also assumes horizontal (‘sister’) relations between words and schemas on the same taxonomic level (Booij 2010: 31–36). Such relations are of particular importance for our study and will therefore be introduced briefly. Constructional ‘sisters’ are pairs or groups of words or schemas that are paradigmatically related. This type of relation is understood broadly here and is taken to include not only members of inflectional paradigms, but also complex words belonging to the same derivational or compound family.

For example, many English nouns ending in *-ism* have a partner noun in *-ist*; the two patterns are mutually related and each could be derived from the other. This is particularly evident in pairs such as *commun-ism* and *commun-ist*, *pacif-ism* and *pacif-ist*, and *altru-ism* and *altru-ist*, which lack a lexical base and

can therefore only be derived ‘horizontally’. As the relation between *-ism* and *-ist* extends beyond individual words and is systematic, it can be understood as a paradigmatic relation between two schemas. This configuration is represented in (3); the relation between the two constructions is marked by  $\approx$  (Booij & Masini 2015):

$$(3) \quad \langle [X -ism]_{N_i} \leftrightarrow SEM_i \rangle \approx \langle [X -ist]_{N_j} \leftrightarrow [person\ with\ property\ Y\ related\ to\ SEM_j]_j \rangle$$

Booij (2010), Booij and Masini (2015) and Masini and Audring (2019) refer to such configurations as *second order schemas*; Jackendoff and Audring (2019, 2020) use the term *sister schemas*. The defining characteristic of a second order or sister schema is that the participating schemas contain the same base: the X on the left- and the right-hand side of the  $\approx$  in (3) is the same X. The relation is bidirectional and declarative rather than procedural; hence, no precedence is ascribed to either partner.

In Section 5 we will argue that nominal and adjectival Persian  $[X-yāb]$  compounds, and categorially ambiguous words in general, can also be analysed as a second order configuration, a pair of sister schemas. First, however, we address the semantics of the pattern(s).

### 3. Semantic classification

The  $[X-yāb]$  compounds in our data set can be divided into the following three classes:

- a. **Agentive adjective:** These compounds are adjectives describing properties or characteristics of a human being or a non-human entity, whereby the semantic relation is usually agentive. Examples are *kām-yāb* (lit. ‘prosperity-find’) ‘prosperous’, *zūd-yāb* (lit. ‘soon-find’) ‘clever’, *dīr-yāb* (lit. ‘late-find’) ‘dumb’. The agentivity lies in the fact that the referent is usually the finder rather than the thing found. All  $[X-yāb]$  compounds can be used in this function (see Section 5 for further discussion).
- b. **Human agent noun:** Words of this class denote persons who perform the act of finding in relation to the meaning of the first component of the compound. Our dataset of 260 noun types contains 119 cases of this kind.<sup>8</sup> An example is *haqiqat-yāb* (lit. ‘truth-find’) ‘truth finder’ in (4):<sup>9</sup>

8. All frequencies given in this article are type frequencies.

9. Human agent nouns can denote professions, but such cases are rare here. Our sample contains only three instances: *arz-yāb* (lit. ‘valuation-find’) ‘valuator’, *bāzār-yāb* (lit. ‘market-find’) ‘marketer’ and *haqiqat-yāb* (lit. ‘truth-find’) ‘truth finder’.

- (4) Vazife-ye<sup>10</sup> asli-ye **haqiqat-yāb** yāftan-e haqiqat ast.  
 duty-EZ main-EZ truth-find find-EZ truth is  
 ‘The main duty of a truth finder is finding the truth.’

(<http://tabnak.ir>, retrieved July 9th, 2019)

- c. Instrument noun: The words in this category refer to an instrument used in performing the act of finding in relation to the meaning of the first component of the compound. These words are used for two types of instrument: physical instruments and virtual instruments such as computer software. For example, *felez-yāb* (lit. ‘metal-find’) ‘metal detector’ is an instance of a physical instrument, while *vāze-yāb* (lit. ‘word-find’) ‘word finder’ is a software. A total of 141 cases, i.e., more than half of the noun types in our dataset, belong to this category.

Two important observations emerge from our data. First, classes b. and c. appear to be mutually exclusive – all nouns in our dataset denote either a human finder or a tool used in finding – though this may be an artifact of the sample. Second, all nouns in b. and c. can be used with a class a. function, i.e., as adjectives. The first observation is relevant for Section 4, the second for Section 5.

In constructional terms, the three classes can be represented as in (5a–c).

- (5) a.  $\langle [[X]_{N/A/ADVi} [yāb]_{VPRS}]_{Aj} \leftrightarrow [\text{property of an agent performing the task of finding in relation R to SEM}_i]_j \rangle$   
 b.  $\langle [[X]_{N/A/ADVo} [yāb]_{VPRS}]_{NP} \leftrightarrow [\text{human agent performing the task of finding in relation R to SEM}_o]_p \rangle$   
 c.  $\langle [[X]_{N/A/ADVq} [yāb]_{VPRS}]_{NR} \leftrightarrow [\text{instrument performing the task of finding in relation R to SEM}_q]_r \rangle$

The relation R remains underspecified: a nominal X can denote the object of finding, as in *felez-yāb* ‘metal detector’, or encode a related concept, as in *Tehrān-yāb* ‘lit. Tehran-find’, an app for finding shops and sights in Tehran. Adjectival and adverbial Xs each come with a different variety of relations. In addition, the original semantic relation can be obscured by lexicalization effects, as in *dīr-yāb* (lit. ‘late-find’) ‘dumb’.

10. The suffix *-e* or *-ye* is called *ezāfe* and is glossed as EZ. It connects a noun and its modifier.

#### 4. Relations within the constructional family

For the analysis, the first question to ask is whether we are dealing with a single construction or a family of constructions. In principle, it would be possible to subsume all three constructions under a hypothetical superconstruction as in (5d).

- (5) (d)  $\langle [[X]_{N/A/Adv} [y\bar{a}b]_{V_{PRS}}]_{N/Ab} \leftrightarrow [(\text{property of}) \text{ agent performing the task of finding in relation R to SEM}_a]_b \rangle$ .

This construction is underspecified for its input category (N, A, Adv) as well as its output category (N or A) and for the semantic relation it encodes (agent or property of agent, plus the unspecific relation R already discussed). We defer the discussion of the usefulness of such a schema to Section 5, where we will present an alternative solution. First, however, we inquire about the relation between the two nominal patterns. On the one hand, their meanings can easily be subsumed under a common category, e.g., ‘agent in finding’. On the other hand, analyzing them as subconstructions of the same superordinate construction would ideally imply that they represent a case of “regular polysemy”, in which “a prototypical meaning forms the starting point for deriving other meanings through the semantic extension mechanisms of metaphor and metonymy” (Booij 2010: 78). That is to say, the various meanings should be systematically relatable (Lyons 1977; Evans & Green 2006). In the following, we will see whether this is indeed the case. After some preliminaries on the relation between agent and instrument nouns in general we address the diachronic evidence for Persian and then hypothesize about the lexicon of present-day speakers.

##### 4.1 Metaphorical extension of human agent to instrument

Typologically speaking, a systematic polysemy between human agent and instrument nouns is a common phenomenon. It is usually attributed to a semantic extension of the concept of human agent to the concept of instrument. Luschützky and Rainer (2011: 287) trace the recognition of a special relationship between agents and instruments back to 19th century scholarship, especially Meyer-Lübke (1890). The general mechanism is assumed to be personification (Menéndez Pidal 1968) or the transferring of animate characteristics to inanimate entities (Lüdtke 2005). Booij (1986) describes the metaphorical shift from agent to instrument along an extensional path from personal agents via impersonal agents to instruments. An example is the Dutch noun *zender*, which has three meanings: ‘sender’ (personal agent), ‘radio/TV station’ (impersonal agent) and ‘transmitter’ (instrument). The impersonal agent functions as an intermediate or mediating

category (1986: 509). This path is a typical example of a metaphorical domain shift (Booij 2005: 221).

However, not all cases of polysemy can be explained in these terms. For example, Panagl (1975, 1978) finds that not all instrument nouns ending in *-er* in German have a corresponding agent noun from which they could be derived. Beard (1990) offers evidence against a unilateral shift by showing that the Serbo-Croat suffix *-l(o)* is the result of an extension in the opposite direction, from instrument to agent (other such cases are mentioned in Luschützky & Rainer (2011: 329)). Finally, Rainer (2004a, 2004b, 2005a, 2011), discussing Romance data, finds that not all relevant cases of agent/instrument polysemy can be attributed to semantic extension; some are a consequence of ellipsis, borrowing or analogy.

#### 4.2 The diachrony of the [X-*yāb*] compounds

The Persian *-yāb* compounds discussed in this article constitute another case that cannot be explained as a metaphorical extension from agent to instrument. Such an extension should manifest itself in the form of earlier agent nouns appearing as instrument nouns in later attestations, or indeed by agent/instrument polysemy in individual nouns at a certain point in time. However, none of the 141 instrument nouns in our data collection has an agent noun ancestor. For example, *hotel-yāb* (lit. ‘hotel-find’) ‘hotel finder’, *mūzīk-yāb* (lit. ‘music-find’) ‘music finder’, *jahat-yāb* (lit. ‘direction-find’) ‘direction finder’, *moj-yāb* (lit. ‘wave-find’) ‘wave detector’, etc. convey instrumental meanings exclusively and are never attested with a human agent meaning. In addition, as noted above, there appears to be no human agent/instrument polysemy in any of the nouns in our dataset, so there is no evidence for an intermediate stage in a metaphorical shift.

Moreover, there are significant differences in attestation time between the human agent nouns on the one hand and the instrument nouns on the other. The [XV<sub>PRS</sub>] construction itself has a long history, and the first instances of [X-*yāb*] date back to the 3rd century AH/ 9th AD. By contrast, instrument meanings only start to appear in recent decades.<sup>11</sup> Based on the data obtained from the Farhangyar corpus, the first uses emerge in the second half of the 14th century AH/ 20th cen-

11. There is a single exception, which is the noun *estar-yāb* (lit. ‘star-find’) ‘astrolabe’, attested in the 5th century AH/ 11th century AD. The word goes back to Greek *astrolabos* (*aster* ‘star’ + *lambanein* ‘take, grasp, understand’; Morrison 2006: 1). Persian has borrowed the word via Arabic (Al-Biruni 5th century AH/ 11th century AD, translated as Kennedy 1976). The first part has a straightforward cognate in Persian (*estar* or *estār* ‘star’, HasanDoust 2013: 1683–1684), and the semantic and phonological similarity between *-lāb* and *-yāb* ‘find, grab’ probably led to a reanalysis of the compound as *estar-yāb* or *estār-yāb*. Since this word is a clear singleton as well as a case of folk etymology, we exclude it here.

tury AD. Our earliest attestation is the noun *tarāz-yāb* (lit. ‘balance-find’) ‘balance finder’, dating back to 1378 AH/1959 AD:

- (6) do, se nafar bā metr va **tarāz-yāb** [...] xodi nešān mi-dād-and  
two, three people with meter and balance-find [...] REFL show PROG-give-3PL  
‘two or three men with meter and balance finder were showing up’  
(“Showhar-e Ahoon Khanom”, Afghani, 1959 AD: 858)<sup>12</sup>

Compounds with an instrument meaning have shown a marked increase in recent years. Surfing the web, one can easily find novel instrument nouns of the structure [X-*yāb*], especially referring to applications and websites. An example is *moʔallem-yāb* (lit. ‘teacher-find’) ‘teacher finder’, a website launched in 2018:

- (7) **moʔallem-yāb** webgāh-ī ast ke moʔallem-ān rā barāye tadrīs dar  
teacher-find website-INDF is that teacher-PL OBJ for teaching in  
marākez-e moxtalef mi-yāb-ad va moʔarefi mi-kon-ad.  
centers-EZ different PROG-find-3SG and introduction PROG-do-3SG  
‘*Moʔallem yāb* is a website that is used to find teachers and introduce them to  
various academic centers.’ (http://irna.ir, retrieved August 14th, 2019)

Other recent coinages are *pelāk-yāb* ‘number plate finder’ (2018), *rafiq-yāb* ‘friend finder’ (2015) and *pezešk-yāb* ‘doctor finder’ (2015); again, all of them denote digital tools (the year refers to the year the tool was introduced).

The following table shows the type frequency distribution of the instrument nouns since the 1950s in our data collection:

**Table 1.** Type frequency distribution of instrument nouns

Decade	1950–1959	1960–1969	1970–1979	1980–1989	1990–1999	2000–2009	2010–2019
Type frequency	1	4	6	10	13	34	73

Obviously, these numbers should be treated with caution as they stem from different data sources (specified in Section 1), which are of unequal size. Yet, the impression is clearly that we are dealing with a construction that has emerged recently and is on the rise. Its productivity spurt is difficult to account for if it is viewed as the offspring of a construction that has been available continuously for centuries. Hence, it makes sense to look for other factors that can explain this development.

12. Literary references are given in the format “Title of work”, Author, Year: Page.

### 4.3 Loan translation

A relevant consideration is, of course, that new technologies have spawned a great number of new instruments, many of them digital, and that these often come with English names. Many words like *viewfinder*, *smoke detector* or *metal detector* enter other languages as loans or loan translations. This also happened in Persian (Sadeghi 2001: 25–26). The structural and semantic parallels between English instrument nouns of this type and the Persian instrument nouns suggest that many of the Persian nouns are in fact loan translations from English. They all follow the same agentive pattern and often translate as *detector* or *finder*.<sup>13</sup> Examples are given in Table (2).

**Table 2.** Examples of Persian instrument nouns and their English equivalents

Persian word	English equivalent	First attestation
<i>āb-yāb</i>	water detector	1408 AH/ 1988 AD
<i>ātaš-yāb</i>	fire detector	1423 AH/ 2003 AD
<i>arz-yāb</i>	width detector	1412 AH/ 1992 AD
<i>bomb-yāb</i>	bomb detector	1425 AH/ 2005 AD
<i>dūd-yāb</i>	smoke detector	1389 AH/ 1970 AD
<i>ensān-yāb</i>	man/human finder	1421 AH/ 2001 AD
<i>eyb-yāb</i>	flaw detector	1407 AH/ 1987 AD
<i>felez-yāb</i>	metal detector	1410 AH/ 1989 AD
<i>ganj-yāb</i>	treasure detector	1403 AH/ 1982 AD
<i>hofre-yāb</i>	cave finder	1417 AH/ 1997 AD
<i>jahat-yāb</i>	direction finder	1390 AH/ 1970 AD
<i>jasad-yāb</i>	corpse/body detector	1422 AH/ 2002 AD
<i>māhī-yāb</i>	fish finder	1413 AH/ 1993 AD
<i>manzar-yāb</i>	viewfinder	1431 AH/ 2010 AD
<i>maʿdan-yāb</i>	mine detector	1417 AH/ 1997 AD
<i>masāfat-yāb</i>	range finder	1419 AH/ 1998 AD
<i>mīn-yāb</i>	mine detector	1400 AH/ 1979 AD
<i>moj-yāb</i>	wave finder	1400 AH/ 1979 AD

13. In other instances, the English equivalent contains the suffix *-or* or *-er*, e.g., in *arz-yāb* (lit. ‘valuation-find’) ‘valuator’, *bāzār-yāb* (lit. ‘market-find’) ‘marketer’ and *rad-yāb* (lit. ‘trace-find’) ‘tracer’. A few instances contain *locator* in its English equivalent, as in *forūšgāh-yāb* (lit. ‘store-find’) ‘store locator’.

Table 2. (continued)

Persian word	English equivalent	First attestation
<i>našt-yāb</i>	leak detector	1413 AH/ 1993 AD
<i>omq-yāb</i>	depth finder	1399 AH/ 1979 AD
<i>tarāz-yāb</i>	balance finder	1379 AH/ 1959 AD

In addition, many of the nouns in question – English as well as Persian – share a semantic peculiarity, viz. that the instruments accomplish the finding in a more or less autonomous fashion. That is, the nouns do not have an instrumental meaning in the technical sense of the word (‘with the help of’), but an impersonal agent meaning, very much like Dutch *zender* mentioned in 4.1. We will return to this observation presently.

For modern Persian, we can observe that the [X-*yāb*] construction has achieved productivity, giving rise to novel compounds without an English equivalent, like *Tehran-yāb* (lit. ‘Tehran-find’):

- (8) **Tehrān-yāb** ādres-e behtarin ja-hā-ye didani-ye tehrān [...] rā  
 Tehran-find address-EZ best place-PL-EZ sightseeing-EZ tehran [...] OBJ  
 barāye kārbar mi-yāb-ad  
 for user PROG-find-3SG.  
 ‘*Tehran yāb* provides the user with the address of the best sightseeing spots  
 across Tehran. (http://iranapp.ir, retrieved August 15th, 2019)

Hence, the pattern has been assimilated successfully.

#### 4.4 Relatedness

The question remains how the new construction, [X-*yāb*] with an instrument meaning, connects to the much older [X-*yāb*] construction with a human agent meaning. Other studies about pattern borrowing and language change are informative here. First, the developments are reminiscent of cases described in Luschützky and Rainer (2011: 329), where individual suffixes have gained new productivity and/or additional meanings under the influence of loanwords; examples are the French derivational suffix *-eur*, which acquired a stronger instrumental meaning through loan translations from English (*ventilateur* < *ventilator*), and the Finnish suffix *-ri*, for which Germanic influences seem to have had a similar effect. Second, patterns of language change show that speakers are tolerant of novel meanings, especially if these are in accordance with common metaphorical or metonymic pathways (Rainer 2005b). Rainer introduces the term *approximation* for the use of an existing word-formation pattern for new semantic purposes.

A similar concept in Construction Morphology is *partial motivation*, sketched briefly in Section 2: words can latch on to a pattern even if they match it only partially. Consequently, although our diachronic investigation does not support an explanation in terms of a metaphorical extension from human agent to instrument, this does not mean that such metaphorical relations cannot be imposed post-hoc by the speaker. This is especially likely considering a) the obvious formal identity of the two patterns and b) the fact that there is an in-between pattern, i.e., the impersonal agents mentioned in the previous section, which can smoothen the relational pathway. Moreover, there are other  $[XVPRS]_{A/N}$  compounds with agent/instrument polysemy, for example  $[X-paz]$  ‘X-cooker’ or  $[X-gir]$  ‘X-catcher’. Hence, language users can be expected to perceive the two  $[X-yāb]$  constructions as related, despite their divergent origin.

As a result, we argue that Persian synchronically possesses two related and formally identical patterns with a human agent and an instrument/impersonal agent meaning, which can be represented as a family of schemas, as in Figure (2). The superordinate schema is given at the top; it captures the general meaning ‘agent performing the task of finding in relation R to SEM’. The human agent schema and the instrument/impersonal agent schema can be regarded as subschemas with more specific meanings.

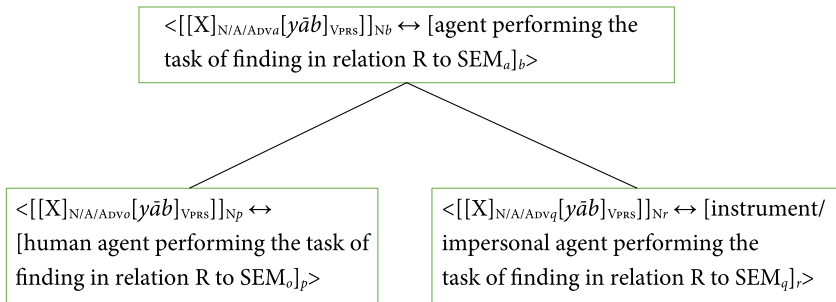


Figure 2. The constructional family of the  $[X-yāb]_N$  compounds

The diachronic evidence suggests that this family constellation did not arise from an extension of the left-hand subschema or a specialization of the general schema, but from a convergence of the two subschemas, which have arisen with some degree of independence but are now, in all likelihood, perceived as related.

Considering the relatively high frequency of novel instances in recent years, the right-hand subschema is felt to be more productive by speakers of present-day Persian. In CxM, productivity can be understood as the openness of a variable, i.e., the ease with which it accepts unification with new lexical material (see Jackendoff & Audring 2020: 40 for more detailed discussion). An advantage of the

configuration in Figure (2) is that the degree of openness can be encoded separately for each subschema, enabling us to capture whatever differences in productivity are suggested by observations about language use.

## 5. Agent nouns and agentive adjectives as sister constructions

Returning to the  $[X-yāb]$  pattern in general, we saw that the compounds in question have another interesting property: they can be used both as nouns and as adjectives. Again, Construction Morphology offers helpful conceptual tools. In Section 2 we introduced the notion of *second order schemas* or *sister schemas*. In the remainder of this article, we argue that this notion is useful for the case at hand.

The dual nominal-adjectival function of the  $[X-yāb]$  pattern and other derivational and compound patterns is clearly prevalent in Persian. It is included in dictionary entries and recognized in the linguistic literature. Scholars of Persian morphology often consider it an instance of *conversion*, although the directionality is generally impossible to determine (Tabataba'i 2003b; Rafiei 2008; Rafiei & Rezaei 2018). An important advantage of an analysis in terms of sister schemas is that paradigmatic relations are bidirectional in nature: no partner is primary with respect to the other. In the following, we illustrate the dual function of the  $[X-yāb]$  compounds with the help of examples, before proceeding to the analysis.

### 5.1 Nominal and adjectival uses

In this section we present a number of syntactic, morphological and semantic configurations in which an  $[X-yāb]$  compound can be seen in adjectival or nominal function. We start with syntactic configurations.

#### 5.1.1 Syntactic configurations

One way to distinguish between nominal and adjectival uses is by means of conjunction. Adjectives can be conjoined with other adjectives and nouns with other nouns. The first situation is shown in (9), the second in (10), repeated from (6) in Section 4.2.

- (9) [u] xeradmand o **adā-yāb** [ast]  
 [he] clever and mystery-find [is]  
 'He is clever and mystery-finding.'  
 ("Divān-e Hazin", Hazin, 12th cent. AH/ 18th cent. AD: 693)

- (10) do, se nafar bā metr va **tarāz-yāb** [...] xodi nešān mi-dād-and  
two, three people with meter and balance-find [...] REFL show PROG-give-3PL  
'two or three men with meter and balance finder were showing up'  
(“Showhar-e Ahoo Khanom”, Afghani, 1959 AD: 858)

Adjectives, but not nouns, can be combined with quantifiers or intensifiers (Tabataba'i 2003b: 54), an example is shown in (11).

- (11) inhā ke mi-šenas-am, jamā'ati bas farhang-yāb hastand.  
those [people] that PROG-know-1SG people very culture-find are.  
'The ones I know are very civilized (culture-finding) people.'  
(“Zeile Jāmeʔ Altavārix”, Hafez Aberu, 9th cent. AH/ 15th cent. AD: 87)

Hence, the [X-yāb] compounds in (9) and (11) function as adjectives, while (10) shows a case of nominal use.

A variety of syntactic constructions are specific to nouns. For example, nouns can occupy the left-hand part in the ezafe construction [N-EZ A/N] (see e.g. Kahnemuyipour 2014: 2), as in (12) and (13).

- (12) **bāzār-yāb-e** siyāsī, hads-am dorost ast?  
market-find-EZ political guess-POSS right is?  
'A political marketer, am I right?'  
(“Don-e ārām”, Vol. 2, translated by Shamlou 1419 AH/ 1999, AD: 680)
- (13) **arz-yāb-e** bime šaxs-i haqiqi yā hoquqi-ye mostaqeli ast  
value-find-EZ insurance person-INDF natural or legal-EZ independent is  
'The valuator of insurance companies is an independent natural or legal person'  
(<http://bidbarg.com/bimeh>, retrieved July 9th, 2019)

In addition, nouns can combine with the free-standing vocative marker *ey* (Anvari & Ahmadi Givi 1999: 14); two examples are (14) and (15).

- (14) nešān-e som-e asb-at ey **kām-yāb**  
trace-EZ clop-EZ horse-POSS VOC prosperity-find  
'The trace of the clop of thy horse, oh ye prosperous person'  
(“Farsnāme-ye Hesami”, Hesami, 10th cent. AH/16th cent. AD: 176)
- (15) ey **farhang-yāb**, be Yusuf to rā mozde bād  
voc culture-find, about Yusuf you OBJ message deliver  
'oh ye culture finder, I am here to deliver a message about Yusuf'  
(“Yusuf and Zoleikha-ye Toqānshāhi”, (attribute to) Ferdowsi, 5th cent. AH/  
11th cent. AD: 80)

Finally, Persian has an indefinite clitic that attaches to nouns (Shaghghi 2012: 74), as in (16) and (17).

- (16) *kām-yāb-ī* ke dar bazm-e tarab be-nešin-ad  
 prosperity-find-INDF that in festivity-EZ merrymaking SUBJ-sit-3SG  
 ‘A prosperous person sitting in a merrymaking festivity’  
 (“Divān-e Jami”, Jami, 9th cent. AH/ 15th cent. AD: 442)
- (17) *zafar-yāb-ī* ke ø-yāb-ad harče ø-jüy-ad  
 triumph-find-INDF that SUBJ-find-3SG everything SUBJ-search-3SG  
 ‘A victorious person who achieves whatsoever he/she desires’  
 (“Divān-e Souzani”, Souzani, 6th cent. AH/ 12th cent. AD: 273)

The examples in (12)–(17) illustrate nominal uses of [X-*yāb*] compounds. Note that (11) and (15) contain the same form, *farhang-yāb*, showing that both uses are available for the same word.

### 5.1.2 Morphological and semantic configurations

Morphological contexts that disambiguate between nominal and adjectival use are harder to find. A tricky case is the marker *-i*, which derives nouns from adjectives or adjectives from nouns (Tabataba’i 2003b: 53–54). An example of the nominalizing use can be seen in (18); here, the syntactic context tells us that *bāzār-yāb-i* is a noun; hence, *bāzār-yāb* must be an adjective.

- (18) čegune *bāzār-yāb-ī* rā šoru kon-im?  
 how market-find-NOM OBJ start do-3PL  
 ‘How do we start marketing?’  
 (<http://www.theaminlotfi.com/how-to-start-marketing/>, retrieved January 20th, 2020)

Finally, nouns and adjectives can be distinguished on semantic grounds. A substantial class of examples is furnished by *ezafe* constructions with the [X-*yāb*] compound as the right-hand member (compare (12) and (13) in which it constitutes the left-hand member). In structural terms, these constructions are ambiguous: the right-hand member can be a noun or an adjective. However, the two uses can be distinguished on semantic grounds, as they either involve a single entity (in the case of [N-EZ A]) or two entities (for [N-EZ N]) (Tabataba’i 2003b: 55–56). Single-entity reference is found especially in cases where the left-hand noun refers to a person (*šaxs* ‘person’, *ensān* ‘man, human’, *pesar* ‘boy’, *zan* ‘woman’, *mard* ‘man’ etc.) or an entity such as a device (*dastgāh*) or software (*narmafzār*). Examples (19) to (21) demonstrate this situation.

- (19) *šaxs-e bāzār-yāb* če kār-ī rā mi-kon-ad  
 person-EZ market-find what activity-INDF OBJ PROG-do-3SG  
 ‘What does a marketer do?’ (<http://www.mrvisitor.ir>, retrieved June 14th, 2018)

- (20) *čizi na-yāft-and bozorg-ān-e xorde-yāb*  
 nothing NEG-find-3PL elderly-PL-EZ fault-find  
 ‘The critical elderly found nothing’  
 (“Divān-e Adib Saber”, Adib Saber, 6th cent. AH/1108–1204 AD: 332)
- (21) *dastgāh-e tarāz-yāb se qesmat-e foqāni, miyāni va tahtāni dar-ad*  
 device-EZ balance-find three part-EZ upper, middle and lower have-3SG  
 ‘A balance finding device has three parts: upper, middle and lower.’  
 (<http://.kanoon.ir>, retrieved June 14th, 2018)

Note that *tarāz-yāb* in (21) is the same form as in (10), where it was shown in nominal use, and *bāzār-yāb* occurs as an adjective in (19) but as a noun in (12) and (18).

A related but special case is the *ezafe* construction with a proper name on the left; here the right-hand member is an adjective according to the same semantic considerations as outlined above. (22) exemplifies this use.

- (22) *šab-ī xoft-e būd-ø Bābak-e zūd-yāb*  
 night-INDF sleep-PP was-3SG Babak-EZ soon-find  
 ‘One night, clever Bābak was asleep’  
 (“Shāhnāme”, Vol. 6, Ferdowsi, 4th cent. AH/10th cent. AD: 140)

Summing up, the cases presented in this section show that compounds with the structure [X-*yāb*] can appear both as nouns and as adjectives. Indeed, ambiguous uses can be found: in the sentence in (23), *eqāmat-yāb* could be a noun or an adjective modifying an implicit noun (such as *barnāmak* ‘application’).

- (23) *eqāmat-yāb be šoma eqāmatgāh-hā-ye xubi rā pišnahad mi-dah-ad.*  
 residence-find to you residence-PL-EZ good OBJ suggest PROG-give-3SG  
 ‘Residence finder suggests good residences to you.’  
 (<http://.eghamatyab.com>, retrieved January 14th, 2019)

Hence, the bicategoriality of the [X-*yāb*] compounds is well established.

## 5.2 Sister constructions

The structural ambiguity between nouns and adjectives is not restricted to the [X-*yāb*] compounds. It is pervasive in Persian [XV<sub>PRS</sub>] compounds in general, as well as in derivations with the agentive suffixes *-gar*, *-ande*, *-bān*, *-ār* and *-či*. Two examples with the suffix *-gar* are given in (24) and (25) (from Rafiei and Rezaei 2018).

- (24) *pesar-e bāzigar*  
 boy- EZ actor  
 ‘a playacting boy’
- (25) *dastgāh-e čāpgar*  
 device-EZ printer  
 ‘a printing device’

The words *bāzigar* ‘actor’ and *čāpgar* ‘printer’ function as adjectives here but also appear in nominal use (one with a human agent meaning, the other with an instrument meaning). Importantly, Rafiei (2008), Torabi (2014) and Rafiei and Rezaei (2018) show that neither the nominal or the adjectival use of such words is synchronically (i.e., semantically) or diachronically primary with respect to the other. The same holds for the [X-*yāb*] compounds: while individual instances might be attested earlier or more frequently in nominal than in adjectival use or vice versa, the synchronic relation between the two patterns is bilateral and neither of the two uses can be identified as primary.

In Section 2 we introduced the notion of *second order schemas* or *sister schemas*. This notion captures configurations of exactly the type we are seeing here: paradigmatically related schemas. Based on this analysis, the two Persian compound constructions of agent noun and agentive adjective can be represented as in Figure (3). This representation encodes the generalization that the two constructions are related by a ‘horizontal’ or paradigmatic connection between them. The important detail is that the variable [X] has the same index *i*, as it pertains to the same range of input forms.<sup>14</sup> By the same reasoning, the agent has the same index *k* in both schemas. If one of the schemas is instantiated by a particular word, we can expect a parallel instantiation of the other schema. Since the relation is bidirectional, neither of the two schemas is necessarily a starting point from which the other is derived.

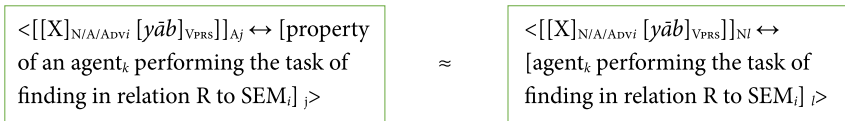


Figure 3. Sister schemas of agent noun and agentive adjective

14. Strictly speaking, the sister relation is not limited to a shared base, as the two sister constructions are in fact fully identical in their phonological structure. The representation in Figure (3) collapses phonology and morphosyntax on the left-hand side of the double arrow, which is why this generalization cannot be shown here. A more elaborate notation such as the one used in Jackendoff and Audring (2020) is more powerful in this respect, but was not chosen in the interest of readability.

Note that this analysis is not appropriate for the two nominal constructions in Figure (2), i.e., the human agent and the instrument nouns, as we do not seem to see nouns in both uses; hence, there appear to be no cases for which the X on both sides of the pair is the same X.

For the two schemas in Figure (3), an analysis in paradigmatic terms has the advantage that it does not require a more general ‘mother schema’ as hypothesized in (5d) above, repeated here for convenience.

- (5) d)  $\langle [[X]_{N/A/Adv_a} [y\bar{a}b]_{VPRS}]_{N/Ab} \leftrightarrow [(property\ of)\ agent\ performing\ the\ task\ of\ finding\ in\ relation\ R\ to\ SEM_a]_b \rangle$ .

The advantage lies in the fact that a sister configuration is more parsimonious: a mother schema would constitute an additional lexical item. In this particular case, the mother schema is arguably fully redundant with respect to the sisters, as the specifics of their relation can be encoded by paradigmatic links. Note that this line of argumentation presupposes a “full entry” type of lexicon in which all lexical items are fully specified. This means that information encoded in the mother is not purged from the daughters. Hence, a mother node does not automatically ‘save space’ by allowing for information to be omitted elsewhere. See Audring (2019) for a fuller discussion of the division of labour between mother nodes and sister links, and see Jackendoff and Audring (2020: Chapter 3) on full entry.

As we saw, the sister relation between A and N patterns recurs in other constructional pairs, including other exocentric compounds with verbal stems, introduced in Section 1. The relation can therefore be stated on a more general level in the constructional network. However, it only holds for particular derivational and compound constructions and therefore needs to be specified for each participating construction. A more general sister schema,  $[A] \approx [N]$ , can unite all relevant constructions and lend additional motivation to the subschemas (recall Section 2), with the understanding that it does not apply across the board: knowing which lower-level constructions participate in the relation is required.

## 6. Summary and conclusion

In this study we discuss Persian compounds ending in the present stem *-yāb* ‘find’. These compounds are interesting because they are polysemous and multi-functional: they appear as human agent nouns and as instrument nouns; and all forms can be used in nominal and adjectival roles. Our analysis of 260 different *-yāb* compounds culled from synchronic and diachronic sources reveals that the present-day split between the two nominal constructions in human agent nouns

and instrument nouns does not result from a metaphorical extension from agent to instrument. Instead, the instrument noun construction is a recent innovation, arising mainly from loan translation of English instrument nouns and dovetailing with the much older construction for human nouns. In modern Persian, the two constructions can be regarded as subschemas of a nominal compound schema, which can be formalised as in (26):

$$(26) \quad \langle [[X]_{N/A/Adv_a} [y\bar{a}b]_{V_{PRS}}] ]_{Nb} \leftrightarrow [\text{agent performing the task of finding in relation R to SEM}_a]_b \rangle$$

The analysis within the framework of Construction Morphology allows for a straightforward representation of the various patterns and the relations between them. This also includes the dual function of the *-yāb* compounds as nouns and adjectives. While derivational accounts have analysed these as conversions, they encounter the difficulty that neither of the two forms appears to be primary with respect to the other. Hence, the direction of the conversion cannot be determined. Construction Morphology offers the option to model the relation in terms of *second order schemas* or *sister schemas*, whereby the constructions involved are understood to be paradigmatically related, without derivational precedence of one schema vis-à-vis the other. For Persian, this means that all *-yāb* compounds participate in both the nominal and the adjectival sister schema.

The result is a constructional family as in Figure (4).

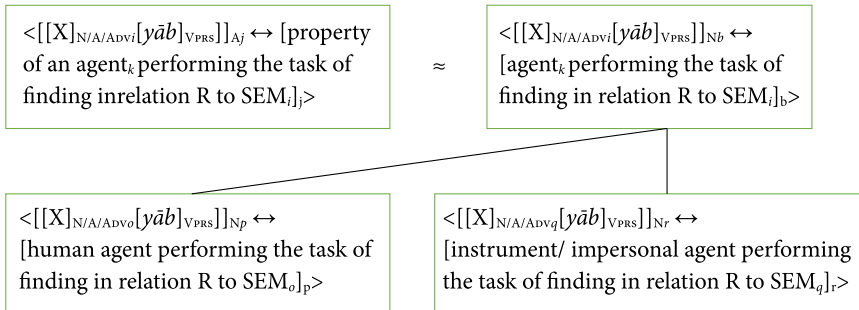


Figure 4. Schematic representation of the [X-*yāb*] family of constructions

The upper level shows the sister relation between the adjectival schema (left) and the nominal schema (right). The lower level shows the human agent subschema (left) and the instrument subschema (right). All *-yāb* compounds are instantiations of both higher-level schemas and of one of the lower-level schemas.

In addition to offering an analysis of the class of *-yāb* compounds in Persian, we hope to have demonstrated the usefulness of Construction Morphology as an

analytical tool for modelling the various semantic and formal relations between complex words.

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## Abbreviations

Glosses conform to the Leipzig Glossing Rules (<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>). In addition, we have used the following abbreviations:

AH Anno Hegirae  
 AD Anno Domini  
 EZ Ezāfe  
 NOM Nominal  
 PP Past participle  
 SUBJ Subjunctive

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## Appendix

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
آبرياب	<i>abar-yāb</i>	big-find	Adj	instrument	super finder (search engine)
اپياب	<i>ap-yāb</i>	app-find	N	instrument	app finder (application)
اجاره‌ياب	<i>ejāre-yāb</i>	rent-find	N	instrument	rent finder (an application which finds and suggests houses for renting)
اخترياب	<i>axtar-yāb</i>	star-find	N	instrument	star finder (an instrument which finds stars in the sky)
اداياب	<i>adā-yāb</i>	flirtation-find	N	human agent	someone who understands the flirtations of his/her beloved
ارزش‌ياب	<i>arzeš-yāb</i>	value-find	N	human agent	someone who knows the value of things; value finder
ارزون‌ياب	<i>arzūn-yāb</i>	cheap-find	Adj	instrument	cheap finder (an application which finds reasonably-priced goods on the market)
ارزياب	<i>arz-yāb</i>	valuation-find	N	human agent	valuator
استرياب	<i>estar-yāb</i>	star-find	N	instrument	astrolabe
اشک‌ياب	<i>ašk-yāb</i>	tear-find	N	human agent	someone who cries about unimportant things; cry-baby
اصطلاح‌ياب	<i>estelāh-yāb</i>	term-find	N	instrument	term finder (a dictionary application and search engine for terms, idioms and proverbs)
اصناف‌ياب	<i>asnāf-yāb</i>	guild-find	N	instrument	guild finder (an application which finds different guilds)

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
اقامت‌یاب	<i>eqāmat-yāb</i>	residence-find	N	instrument	residence finder (an application which finds residences for travelers)
اقبال‌یاب	<i>eqbāl-yāb</i>	luck-find	N	human agent	someone who finds prosperity or luck
اکانت‌یاب	<i>ecānt-yāb</i>	account-find	N	instrument	account finder (an application which finds someone's account in social networks)
الکترونیکیاب	<i>electronīk-yāb</i>	electronic-find	Adj	instrument	electronic finder (an application which finds electronic devices in different stores)
اندازه‌یاب	<i>andāze-yāb</i>	size-find	N	human agent	someone who tests and checks various issues
انسان‌یاب	<i>ensān-yāb</i>	human-find	N	instrument	man/ human finder
انصافیاب	<i>ensāf-yāb</i>	justice-find	N	human agent	someone who seeks justice
انوار‌یاب	<i>anvār-yāb</i>	lights-find	N	human agent	someone who seeks divine and spiritual light
ایده‌یاب	<i>īde-yāb</i>	idea-find	N	instrument	idea finder (a website which promotes young people's ideas)
ایمیل‌یاب	<i>email-yāb</i>	email-find	N	instrument	email finder (an application which finds an email address by name)
آب‌یاب	<i>āb-yāb</i>	water-find	N	instrument	water detector
آتش‌یاب	<i>ātaš-yāb</i>	fire-find	N	instrument	fire detector
آرام‌یاب	<i>ārām-yāb</i>	calm-find	Adj	human agent	someone who seeks peace
آرزو‌یاب	<i>ārezū-yāb</i>	wish-find	N	human agent	someone who achieves his/ her wishes
آف‌یاب	<i>āf-yāb</i>	discount-find	N	instrument	discount finder (an application)
آگهی‌یاب	<i>āgahī-yāb</i>	ad-find	N	instrument	ad finder (a search engine which finds different ads)
آی‌پی‌یاب	<i>aipi-yāb</i>	IP-find	N	instrument	IP finder (an application)
آیکون‌یاب	<i>aicon-yāb</i>	icon-find	N	instrument	icon finder (an application)

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
آیه یاب	<i>āye-yāb</i>	verse-find	N	instrument	verse finder (an application which finds verses in holy Qur'an)
بُردیاب	<i>bord-yāb</i>	range-find	N	instrument	range finder
باریاب	<i>bār-yāb</i>	permission-find	N	human agent	someone who has received the permission to visit the kings and enter their palaces
بازاریاب	<i>bāzār-yāb</i>	market-find	N	human agent	marketer
باشگاه یاب	<i>bāšgāh-yāb</i>	club-find	N	instrument	club finder (an application)
باگیاب	<i>bāg-yāb</i>	bug-find	N	instrument	bug detector (an application)
بانکیاب	<i>bānk-yāb</i>	bank-find	N	instrument	bank finder (an application which finds nearest bank in your neighborhood)
بخت یاب	<i>baxt-yāb</i>	chance-find	N	human agent	someone who achieves prosperity or opportunities
برابریاب	<i>barābar-yāb</i>	equivalent-find	Adj	instrument	equivalent finder (an application which finds English equivalents of Persian words)
بصیرت یاب	<i>basirat-yāb</i>	awareness-find	N	human agent	someone who seeks awareness
بمب یاب	<i>bomb-yāb</i>	bomb-find	N	instrument	bomb detector
بویاب	<i>bū-yāb</i>	odor-find	N	instrument	odor localizer (a robot which detects odors, e.g. of gas in natural disasters)
بهره یاب	<i>bahre-yāb</i>	benefit-find	N	human agent	someone who finds the benefits of a task or thing
بیهدیه یاب	<i>bihode-yāb</i>	absurdity-find	N	human agent	someone who seeks absurdity
پاسخ یاب	<i>pāsox-yāb</i>	response-find	N	instrument	response finder (an application which finds the responses to questions in different fields)
پروازیاب	<i>parvāz-yāb</i>	flight-find	N	instrument	flight finder (an application)

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
پزشک‌یاب	<i>pezešk-yāb</i>	doctor-find	N	instrument	doctor finder (an application which finds doctors specialized in different fields)
پلاک‌یاب	<i>pelāk-yāb</i>	number plate-find	N	instrument	number plate finder (an application which finds your ideal number plate)
پند‌یاب	<i>pand-yāb</i>	advice-find	N	human agent	someone who finds advice and acts based on that advice
پیامک‌یاب	<i>payāmak-yāb</i>	message-find	N	instrument	message finder (an application which finds and suggests messages suitable for a particular situation)
ترازیاب	<i>tarāz-yāb</i>	balance-find	N	instrument	balance finder
ترانه‌یاب	<i>tarāne-yāb</i>	song-find	N	instrument	song finder (an application which finds different songs)
تاکسی‌یاب	<i>tāksi-yāb</i>	taxi-find	N	instrument	taxi finder (an application)
تصویر‌یاب	<i>tasvīr-yāb</i>	image-find	N	instrument	image finder (an application)
تغییر‌یاب	<i>taqyir-yāb</i>	change-find	N	human agent	someone who seeks changes in his/her life
تقلب‌یاب	<i>taqalob-yāb</i>	cheat-find	N	instrument	cheat finder (a software which finds exam cheaters)
تک‌یاب	<i>tak-yāb</i>	loneliness-find	N	human agent	someone who seeks loneliness
تلخ‌یاب	<i>talx-yāb</i>	bitter-find	Adj/Adv	human agent	someone who finds unhappiness and grief
تلگرام‌یاب	<i>telegram-yāb</i>	telegram-find	N	instrument	telegram finder (an application which finds a particular telegram account)
تم‌یاب	<i>tem-yāb</i>	theme-find	N	instrument	theme detector (an application which identifies a WordPress theme)
تمتع‌یاب	<i>tamatto?-yāb</i>	interest-find	N	human agent	someone who finds the benefits of a task or thing
تور‌یاب	<i>tūr-yāb</i>	tour-find	N	instrument	tour finder (an application)

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
تهران یاب	<i>tehrān-yāb</i>	Tehran-find	N	instrument	Tehran finder (an application which finds different places including parks, restaurants, etc. in Tehran)
تیزیاب	<i>tiz-yāb</i>	sharp-find	N	human agent	someone who understands things quickly
جاسوس یاب	<i>jāsūs-yāb</i>	spy-find	N	instrument	spy finder (an instrument which finds hidden cameras)
جایزه یاب	<i>jayeze-yāb</i>	reward-find	N	human agent	someone who seeks rewards
جدول یاب	<i>jadval-yāb</i>	crossword puzzle-find	N	instrument	crossword puzzle finder (an application which finds the answers to crossword puzzles)
جرعه یاب	<i>jorʔe-yāb</i>	droplet-find	N	human agent	someone who seeks divine love and life
جسد یاب	<i>jasad-yāb</i>	corpse-find	N	instrument	corpse/body detector
جنس یاب	<i>jens-yāb</i>	goods-find	N	human agent	someone who seeks to achieve his/her goals
جهت یاب	<i>jahat-yāb</i>	direction-find	N	instrument	direction finder
چاره یاب	<i>čāre-yāb</i>	solution-find	N	human agent	someone who finds a solution for a problem
چشمه یاب	<i>češme-yāb</i>	source-find	N	human agent	someone who seeks the source of anything
چهره یاب	<i>čehre-yāb</i>	face-find	N	instrument	face finder (an engine which searches a person by face image)
حرارت یاب	<i>harārat-yāb</i>	heat-find	N	instrument	heat detector (an instrument which measures the level of heat in a place)
حریف یاب	<i>harif-yāb</i>	contestant-find	N	instrument	contestant finder (an application which finds sports contestants)
حفره یاب	<i>hofre-yāb</i>	cave-find	N	instrument	cave finder
حقیقت یاب	<i>haqiqat-yāb</i>	truth-find	N	human agent	someone who seeks the truth
حکمت یاب	<i>hekmat-yāb</i>	wisdom-find	N	human agent	someone who seeks wisdom

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
خاتمه یاب	<i>xāteme-yāb</i>	destiny-find	N	human agent	someone who seeks the destiny of something
خانواده یاب	<i>xānevāde-yāb</i>	family-find	N	instrument	family locator (an application which finds one's family members on a map)
خانه یاب	<i>xāne-yāb</i>	house-find	N	instrument	house finder (an application)
خرده یاب	<i>xorde-yāb</i>	fault-find	N	human agent	someone who finds faults
خلل یاب	<i>xelal-yāb</i>	weakness-find	N	human agent	someone who seeks weakness and vulnerability
خودرو یاب	<i>xodro-yāb</i>	car-find	N	instrument	car finder
خوشی یاب	<i>xošī-yāb</i>	happiness-find	N	human agent	someone who seeks happiness
داد یاب	<i>dād-yāb</i>	justice-find	N	human agent	someone who seeks justice
دارو یاب	<i>dārū-yāb</i>	medicine-find	N	instrument	medicine finder (an application)
درمان یاب	<i>darmān-yāb</i>	remedy-find	N	instrument	remedy finder (an application which finds remedies for particular symptoms)
دقیقه یاب	<i>daqiqe-yāb</i>	minute-find	N	human agent	someone who is on time and strict
دنیا یاب	<i>donyā-yāb</i>	world-find	N	human agent	miser
دود یاب	<i>dūd-yāb</i>	smoke-find	N	instrument	smoke detector
دوربین یاب	<i>dūrbīn-yāb</i>	camera-find	N	instrument	camera finder (an instrument which finds hidden cameras)
دور یاب	<i>dūr-yāb</i>	distant-find	Adj	human agent	someone who understands things quickly
دوست یاب	<i>dūst-yāb</i>	friend-find	N	human agent	someone who finds friends
دولت یاب	<i>dolat-yāb</i>	government-find	N	human agent	someone who seeks to rule/ become a king
دیتا یاب	<i>deitā-yāb</i>	data-find	N	instrument	data finder (Persian search engine)

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
دید یاب	<i>dīd-yāb</i>	view-find	N	instrument	viewfinder (in cameras)
دیر یاب	<i>dir-yāb</i>	late-find	Adj/Adv	human agent	someone who understands things late
ذوق یاب	<i>zoq-yāb</i>	enjoyment-find	N	human agent	someone who seeks enjoyment
رادیو یاب	<i>rādio-yāb</i>	radio-find	N	instrument	radio locator (a radio station search engine on the internet)
راز یاب	<i>rāz-yāb</i>	secret-find	N	human agent	someone who looks for secrets and their explanations
راه یاب	<i>rāh-yāb</i>	way-find	N	human agent	someone who seeks the reason for anything
رحیل یاب	<i>rahil-yāb</i>	immigration-find	N	human agent	someone who looks for immigration opportunities
رد یاب	<i>rad-yāb</i>	trace-find	N	instrument	tracer
رستوران یاب	<i>restūrān-yāb</i>	restaurant-find	N	instrument	restaurant finder (an application)
رفعت یاب	<i>rafʔat-yāb</i>	highness-find	N	human agent	someone who seeks status and greatness
رفیق یاب	<i>rafīq-yāb</i>	friend-find	N	instrument	friend finder (an application)
رگ یاب	<i>rag-yāb</i>	vein-find	N	instrument	vein finder (a medical device)
رمز یاب	<i>ramz-yāb</i>	secret-find	N	human agent	someone who's looking for secrets
رنج یاب	<i>ranj-yāb</i>	discomfort-find	N	human agent	someone seeks discomfort and misery
روان یاب	<i>ravān-yāb</i>	spirit-find	N	instrument	spirit finder (an application which identifies personality types)
رونق یاب	<i>ronaq-yāb</i>	advancement-find	N	human agent	someone who seeks improvement and advancement
رویایاب	<i>royā-yāb</i>	dream-find	N	human agent	someone who seeks to make his/her dreams come true
رها یاب	<i>rahā-yāb</i>	free-find	Adj	human agent	someone who seeks freedom and liberty

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
زمان یاب	<i>zamān-yāb</i>	time-find	N	human agent	someone who seeks an opportunity
زندگی یاب	<i>zendegi-yāb</i>	life-find	N	human agent	someone who seeks life
زنده یاب	<i>zende-yāb</i>	alive-find	Adj	instrument	life detector (a device to find survivors)
زوال یاب	<i>zavāl-yāb</i>	destruction-find	N	human agent	someone who seeks destruction
زود یاب	<i>zūd-yāb</i>	sharp-find	Adj	human agent	someone who understands things quickly
زینت یاب	<i>zīnat-yāb</i>	embellishment-find	N	human agent	someone who seeks embellishment
ژرف یاب	<i>zarf-yāb</i>	deep-find	Adj	human agent	someone who thinks deeply
ژورنال یاب	<i>zūrnāl-yāb</i>	journal-find	N	instrument	journal finder (an application for finding journals for a publication)
ساعت یاب	<i>sāʔat-yāb</i>	watch-find	N	instrument	watch finder (a search engine for buying and selling luxury watches)
سافت یاب	<i>sāft-yāb</i>	software-find	N	instrument	software finder (a website which finds and sells software)
سالن یاب	<i>sālon-yāb</i>	auditorium-find	N	instrument	auditorium finder (an application which finds rooms for events)
سخن یاب	<i>soxan-yāb</i>	speech-find	N	human agent	someone who seeks speech, language and expression
سعادت یاب	<i>saʔādat-yāb</i>	fortune-find	N	human agent	someone who seeks fortune
سلطنت یاب	<i>saltanat-yāb</i>	monarchy-find	N	human agent	someone who seeks a throne
سلوت یاب	<i>salvat-yāb</i>	happiness-find	N	human agent	someone who seeks happiness
سوئیت یاب	<i>sūʔit-yāb</i>	hotel suite-find	N	instrument	suite finder (an application to find and book hotel suites)
سهام یاب	<i>sahām-yāb</i>	stock-find	N	instrument	stock finder (an application)

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
سيادت ياب	<i>siyādat-yāb</i>	majesty-find	N	human agent	someone who seeks greatness and majesty
سيم ياب	<i>sim-yāb</i>	wire-find	N	instrument	wire finder (an instrument which finds wires underground)
شادي ياب	<i>šādi-yāb</i>	happiness-find	N	human agent	someone who seeks happiness
شرف ياب	<i>šaraf-yāb</i>	honor-find	N	human agent	someone who seeks the opportunity to visit a great person
شريعت ياب	<i>šariʔat-yāb</i>	tradition-find	N	human agent	someone who seeks religion and tradition
شريک ياب	<i>šarik-yāb</i>	partner-find	N	instrument	partner finder (an application to find a business partner)
شعبه ياب	<i>šoʔbe-yāb</i>	branch-find	N	instrument	branch finder (an application which finds the address of different branches of a bank)
شفي ياب	<i>šafā-yāb</i>	cure-find	N	human agent	someone who seeks a cure
شنود ياب	<i>šenūd-yāb</i>	eavesdropping-find	N	instrument	eavesdropping detector
شور ياب	<i>šūr-yāb</i>	excitement-find	N	human agent	someone who seeks excitement
شهرت ياب	<i>šohrat-yāb</i>	prestige-find	N	human agent	someone who seeks prestige
صواب ياب	<i>savāb-yāb</i>	truthfulness-find	N	human agent	someone who seeks truthfulness and justice
صورت ياب	<i>sūrat-yāb</i>	imagination-find	N	human agent	someone who seeks his/her imaginations about an event
صيدياب	<i>seid-yāb</i>	hunting-find	N	human agent	someone who seeks hunting
طبيعت ياب	<i>tabiʔat-yāb</i>	nature-find	N	instrument	nature finder (an application which identifies wildlife)
طراوت ياب	<i>tarāvat-yāb</i>	freshness-find	N	human agent	someone who seeks vivacity and freshness
طرب ياب	<i>tarab-yāb</i>	happiness-find	N	human agent	someone who seeks happiness

Farsi	Transcription	Gloss	Base category	Semantic class	Translation
طعمه یاب	<i>toʔme-yāb</i>	prey-find	N	human agent	someone who seeks a prey agent
طلایاب	<i>talā-yāb</i>	gold-find	N	instrument	gold finder
طوق یاب	<i>tūq-yāb</i>	necklace-find	N	human agent	someone who seeks servitude; servitor
ظفر یاب	<i>zafar-yāb</i>	victory-find	N	human agent	someone who seeks victory agent
عرض یاب	<i>arz-yāb</i>	width-find	N	instrument	width detector
عزت یاب	<i>ezzāt-yāb</i>	respect-find	N	human agent	someone who seeks respect and honor
عصب یاب	<i>asab-yāb</i>	nerve-find	N	instrument	nerve finder
عطر یاب	<i>atr-yāb</i>	scent-find	N	human agent	someone who seeks aromatic scents
عفت یاب	<i>effat-yāb</i>	chastity-find	N	human agent	someone who seeks piety and chastity
عمق یاب	<i>omq-yāb</i>	depth-find	N	instrument	depth finder
عیش یاب	<i>eiš-yāb</i>	pleasure-find	N	human agent	someone who seeks pleasure agent
عیب یاب	<i>eib-yāb</i>	fault-find	N	instrument	fault finder (an instrument which finds car problems)
غذا یاب	<i>qazā-yāb</i>	food-find	N	human agent	someone who seeks food agent
غلط یاب	<i>qalat-yāb</i>	error-find	N	instrument	spell checker
فایل یاب	<i>file-yāb</i>	file-find	N	instrument	file finder (a software which locates duplicate files)
فتح یاب	<i>fath-yāb</i>	victory-find	N	human agent	someone who seeks victory agent
فخر یاب	<i>faxr-yāb</i>	glory-find	N	human agent	someone who seeks something to boast about
فرزند یاب	<i>farzand-yāb</i>	offspring-find	N	human agent	someone who has children agent
فرصت یاب	<i>forsat-yāb</i>	opportunity-find	N	instrument	opportunity finder (an application which finds stocks in the stock market)
فرکانس یاب	<i>ferekāns-yāb</i>	frequency-find	N	instrument	frequency finder (an application which finds radio stations)

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فروشگاه یاب	<i>forūšgāh-yāb</i>	store-find	N	instrument	store locator (an application)
فرهنگ یاب	<i>farhang-yāb</i>	culture-find	N	human agent	someone who seeks culture
فصاحت یاب	<i>fesāhat-yāb</i>	fluency-find	N	human agent	someone who seeks eloquence
فضیلت یاب	<i>fazilat-yāb</i>	virtue-find	N	human agent	someone who seeks virtue and moral values
فکریاب	<i>fekr-yāb</i>	thought-find	N	human agent	someone who seeks thoughts and ideas
فلزیاب	<i>felez-yāb</i>	metal-find	N	instrument	metal detector
فونت یاب	<i>font-yāb</i>	font-find	N	instrument	font finder (an application)
فیض یاب	<i>feiz-yāb</i>	felicity-find	N	human agent	someone who finds the felicity of a task or thing
قافیه یاب	<i>qāfiye-yāb</i>	rhyme-find	N	instrument	rhyme finder (an application)
قبله یاب	<i>qeble-yāb</i>	qibla-find	N	instrument	qibla finder (an application which finds the direction of the qibla)
قدرت یاب	<i>qodrat-yāb</i>	power-find	N	human agent	someone who seeks to gain power
قسمت یاب	<i>qesmat-yāb</i>	fate-find	N	human agent	someone who seeks his/her fate
قطعه یاب	<i>qetere-yāb</i>	piece (metaphor for 'tomb')-find	N	instrument	tomb finder (an application which finds the place of a person's tomb by searching his/her name)
قیمت یاب	<i>qeimat-yāb</i>	price-find	N	instrument	price finder (an application)
کام یاب	<i>kām-yāb</i>	aspiration-find	N	human agent	someone who seeks victory
کاریاب	<i>kār-yāb</i>	job-find	N	instrument	job finder (an application)
کافه یاب	<i>kāfe-yāb</i>	café-find	N	instrument	café finder (an application)
کانال یاب	<i>kānāl-yāb</i>	channel-find	N	instrument	channel finder (an application which finds different channels in telegram)
کتاب یاب	<i>ketāb-yāb</i>	book-find	N	instrument	book finder (an application)

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کد یاب	<i>kod-yāb</i>	code-find	N	instrument	code finder (an application which finds the code number of cities and countries around the world)
کشتی یاب	<i>kešti-yāb</i>	ship-find	N	instrument	ship finder (an application which finds ships by name on a map)
کلمه یاب	<i>kalame-yāb</i>	word-find	N	instrument	word finder (an application which finds words by given letters)
کنفرانس یاب	<i>konferāns-yāb</i>	conference-find	N	instrument	conference finder (a search engine)
گداریاب	<i>godār-yāb</i>	passage-find	N	human agent	someone who seeks a passage
گروه یاب	<i>gorūh-yāb</i>	group-find	N	instrument	group finder (an application which finds different groups in telegram)
گریزنده یاب	<i>gorizande-yāb</i>	evader-find	N	human agent	someone who escapes from someone else or something
گنج یاب	<i>ganj-yāb</i>	treasure-find	N	instrument	treasure detector
گهر یاب	<i>gohar-yāb</i>	jewel-find	N	human agent	someone who seeks an invaluable thing
لذت یاب	<i>lezzat-yāb</i>	enjoyment-find	N	human agent	someone who seeks enjoyment and happiness
لطافت یاب	<i>letāfat-yāb</i>	vivacity-find	N	human agent	someone who seeks vivacity
لطیفه یاب	<i>latife-yāb</i>	joke-find	N	human agent	someone who seeks for a funny remark
لوله یاب	<i>lūle-yāb</i>	pipe-find	N	instrument	pipe detector/ finder
لهویاب	<i>lahv-yāb</i>	amusement-find	N	human agent	someone who seeks happiness and amusement
لینک یاب	<i>link-yāb</i>	link-find	N	instrument	link finder (an application which finds links in emails and messages)
ماهواره یاب	<i>māhvāre-yāb</i>	satellite-find	N	instrument	satellite finder (an instrument which finds the direction to a satellite from any location)
ماهی یاب	<i>māhī-yāb</i>	fish-find	N	instrument	fish finder

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مترادف یاب	<i>moterādef-yāb</i>	synonym-find	N	instrument	synonym finder (an application)
مotel یاب	<i>motel-yāb</i>	motel-find	N	instrument	motel finder (an application)
محنّت یاب	<i>mehnat-yāb</i>	hardship-find	N	human agent	someone who seeks hardship and distress
مخفف یاب	<i>moxafaf-yāb</i>	abbreviation-find	N	instrument	abbreviation finder (an application)
مذعایاب	<i>moddaʔā-yāb</i>	wish-find	N	human agent	someone who seeks to achieve his/her wishes
مدد یاب	<i>madad-yāb</i>	assistance-find	N	human agent	someone who seeks assistance
مراد یاب	<i>morād-yāb</i>	wish-find	N	human agent	someone who seeks fulfillment of his/her wishes
مزد یاب	<i>mozd-yāb</i>	reward-find	N	human agent	someone who seeks rewards
مسافت یاب	<i>masāfat-yāb</i>	distance-find	N	instrument	range finder
مسیر یاب	<i>masīr-yāb</i>	way-find	N	instrument	navigator
مشابه یاب	<i>mošābeh-yāb</i>	similar-find	Adj	instrument	a search engine which identifies plagiarism
مصدق یاب	<i>mesdāq-yāb</i>	example-find	N	human agent	someone who seeks an example for anything
مطب یاب	<i>matab-yāb</i>	office-find	N	instrument	office finder (an application which finds and suggests doctors' offices)
معالي یاب	<i>maʔāli-yāb</i>	greatness-find	N	human agent	someone who seeks greatness and glory
معدن یاب	<i>maʔdan-yāb</i>	mine-find	N	instrument	mining detector
معلم یاب	<i>moʔalem-yāb</i>	teacher-find	N	instrument	teacher finder (an application to find teachers for private schools)
معنی یاب	<i>maʔmī-yāb</i>	meaning-find	N	instrument	meaning finder (an application which finds the meaning of words like a dictionary)
مغفرت یاب	<i>maqferat-yāb</i>	forgiveness-find	N	human agent	someone who seeks forgiveness
مکان یاب	<i>makān-yāb</i>	location-find	N	instrument	location finder (an application)

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ملک‌یاب	<i>melk-yāb</i>	estate-find	N	instrument	estate sale finder (an application)
منبع‌یاب	<i>manbaʔ-yāb</i>	resource-find	N	instrument	resource finder (a software which finds different medical resources)
منظریاب	<i>manzar-yāb</i>	view-find	N	instrument	viewfinder
موبایل‌یاب	<i>mobile-yāb</i>	mobile phone-find	N	instrument	phone finder (an application which finds and suggests phones to a costumer)
موج‌یاب	<i>moj-yāb</i>	wave-find	N	instrument	wave detector (an application)
موزیک‌یاب	<i>music-yāb</i>	music-find	N	instrument	music finder (an application)
موقعیت‌یاب	<i>moqeriyat-yāb</i>	location-find	N	instrument	location finder (an application)
مهریاب	<i>mehr-yāb</i>	affection-find	N	human agent	someone who seeks affection
مهندس‌یاب	<i>mohandes-yāb</i>	engineer-find	N	instrument	engineer finder (an application which finds engineers)
میان‌یاب	<i>miyān-yāb</i>	average-find	N	instrument	average finder (an application which finds the average of a given score)
میزبان‌یاب	<i>mizbān-yāb</i>	host-find	N	instrument	host finder (an application which finds hotels and motels)
میکروفون‌یاب	<i>microfon-yāb</i>	microphone-find	N	instrument	microphone finder (an instrument which finds hidden microphones)
مین‌یاب	<i>mīn-yāb</i>	mine-find	N	instrument	mine detector
نام‌یاب	<i>nām-yāb</i>	name-find	N	human agent	someone who seeks popularity
نذری‌یاب	<i>nazri-yāb</i>	nazri-find	N	instrument	nazri yāb (a mobile app that helps you find nazri (charitable donations) offered in a city)
نشان‌یاب	<i>nešān-yāb</i>	sign-find	N	human agent	someone who seeks signs and symbols
نشت‌یاب	<i>našt-yāb</i>	leak-find	N	instrument	leak detector

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نشئه ياب	<i>našʔe-yāb</i>	fun-find	Adj	human agent	someone who seeks happiness and fun
نصرت ياب	<i>nosrat-yāb</i>	victory-find	N	human agent	someone who seeks victory
نظرياب	<i>nazar-yāb</i>	opinion-find	N	human agent	someone who seeks opinions
نکته ياب	<i>nokte-yāb</i>	point-find	N	human agent	someone who is strict and smart
نماياب	<i>namā-yāb</i>	view-find	N	instrument	viewfinder
نواله ياب	<i>navāle-yāb</i>	diet-find	N	human agent	someone who seeks a diet
نورياب	<i>nūr-yāb</i>	Noor-find	N	instrument	Noor finder (a search engine using the collection of the Noor Islamic research corporation)
نيک ياب	<i>nik-yāb</i>	good-find	Adj	human agent	someone who seeks excellence
واژه ياب	<i>vāže-yāb</i>	word-find	N	instrument	word finder (a bilingual dictionary)
واي فاي ياب	<i>wifi-yāb</i>	wifi-find	N	instrument	wifi finder (an application)
ورزش ياب	<i>varzeš-yāb</i>	exercise-find	N	instrument	exercise finder (an application which finds nearby sports venues)
وقت ياب	<i>vaqt-yāb</i>	time-find	N	human agent	a punctual person
وکيل ياب	<i>vakil-yāb</i>	lawyer-find	N	instrument	lawyer finder (an application)
ويروس ياب	<i>virus-yāb</i>	virus-find	N	instrument	virus finder (an application)
هتل ياب	<i>hotel-yāb</i>	hotel-find	N	instrument	hotel finder (an application)
هجران ياب	<i>hejrān-yāb</i>	separation-find	N	human agent	someone who seeks separation and loneliness
هدف ياب	<i>hadaf-yāb</i>	goal-find	N	human agent	someone who achieves his/her goals
هشتگ ياب	<i>haštag-yāb</i>	hashtag-find	N	instrument	hashtag finder (an application)
هنرياب	<i>honar-yāb</i>	art-find	N	human agent	someone who seeks art

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