

# Sources of BET

## 1 Introduction

We investigate the sources of the concept BET in the languages of the world. The method used exploits polysemies in predicates meaning 'bet'. A predicate meaning 'bet' will often have other senses, and in most cases these can justifiably be treated as earlier senses, and hence as source concepts for BET. A **source concept** is a concept in terms of which a target concept is expressed. Sources and targets are related by polysemy, with the source meaning predating the target meaning, followed by a period of overlap.

The concept BET is expressed by predicates that may be simple (one element, e.g. a verb) or complex (more than one element, one of them usually a verb). With complex predicates the polysemies of each element are considered to be source concepts.

As the use of a predicate is extended to include betting, the change in function may be accompanied by formal change. A simple predicate may have an element added to it, in which case the senses of the added element must be considered source concepts (along with the senses of the original element). Alternatively, a complex predicate of two elements may be reduced to just one element. Here the remaining element takes on the whole meaning of 'bet', originally distributed over two elements. In this case the other senses of the remaining element are considered to be source concepts.

Polysemies from 271 predicates from 177 languages are surveyed in order to find the most frequent source concepts and their geographical distribution. Different

polysemies reflect different aspects of betting events as they affect lexicalization. The most important sources emerge as being SECURITY, PUT, ARGUE, COMPETE, COMMIT, GAMBLE and AGREE. The most frequent sources are ones that profile (in Langacker's 2008 sense) the bettors' relation with the stake (SECURITY, PUT), while sources profiling the relation between the two bettors (ARGUE, COMPETE, AGREE) are also frequent, but less so. A further finding is that the concept BET is lexicalized fairly widely in the world's languages, but is absent in some regions, notably Australia.

The paper is structured as follows. In §2 we look at the range of activities that go under the heading of betting. We compare betting with gambling, noting that some languages distinguish these notions, while others do not. We list the main characteristics of bets, and in particular the kind of bet that is made between two individuals, which we suggest is the most basic kind. Section §3 surveys the existing linguistic literature relating to betting. Section §4 describes the various forms—simple and complex—that a predicate meaning 'bet' can take. Section §5 looks at the relation between polysemy and semantic shift, as well as the formal changes that accompany semantic shift. It is these semantic shifts and accompanying changes in form that lead to the kinds of forms described in §4. Examples are given of semantic shift and change in form that have led to betting predicates. In §6 we say something about borrowing, a factor that we seek to control for in our survey of source concepts. The survey itself is described in §7. Section §8 discusses some issues arising from the survey, and some concluding remarks are made in §9.

## **2 Betting and gambling**

Betting is a reciprocal act of risking items of value on an outcome. The Oxford English Dictionary (OED) (1989) defines it in these terms:

**bet** [...] *n.* [...] <sup>1</sup>

1. a. The backing of an affirmation or forecast by offering to forfeit, in case of an adverse issue, a sum of money or article of value, to one who by accepting, maintains the opposite, and backs his opinion by a corresponding stipulation; the staking of money or other value on the event of a doubtful issue; a wager; also, the sum of money or article staked. [...]

**bet** [...] *v.* [...]

a. *trans.* To stake or wager (a sum of money, etc.) in support of an affirmation or on the issue of a forecast.

In some languages (English included) betting is distinguished from gambling. The OED defines gambling as follows:

**gamble** [...] *v.* [...]

1. a. *intr.* To play games of chance for money, *esp.* for unduly high stakes; to stake money (*esp.* to an extravagant amount) on some fortuitous event.

In both cases something of value is risked on an outcome. Nonetheless, there are important differences between betting and gambling. Gambling may involve 'unduly high stakes', and the event concerned is 'fortuitous', particularly arising in the context of a game of chance. The definition of betting in turn features reciprocity ('offering ... to one who ... maintains the opposite'). Thus according to these definitions, gambling involves luck and betting involves reciprocal staking. Having said this, *bet* in English is often used where luck is involved.<sup>2</sup> Gambling, though, is only used in connection with chance outcomes.

The kinds of outcome that may be bet on range from pure-luck outcomes, as in lotteries, through predictions based on knowledge or reasoning, to contests where the bettors are involved as contestants. This range represents a scale from chance to control and has similarities to the typology of games discussed in Roberts et al. (1959), who divide games into three types: games of physical skill, games of strategy, and games of chance.

Betting also varies in terms of whether the outcome involves a conventional activity. In games and sporting contests, outcomes are highly constrained, often limited to winning and losing. But bets may be on less conventionalized kinds of outcomes too. Betting between individuals—**interpersonal betting** as we call it here—may be on any proposition whose truth can be determined to the satisfaction of the bettors.<sup>3</sup>

The degree to which the outcome that is bet on is conventionalized affects linguistic expression. Broadly, the more conventionalized the type of outcome, the greater the opportunity for brevity of expression. Things that are already understood do not need to be expressed. It is possible to engage in the most institutionalized forms of betting virtually without using language, but especially without mentioning risk or outcomes. One can enter a lottery just by handing over money and asking for a ticket (Sypniewski 2004).<sup>4</sup> Of the different kinds of betting, interpersonal bets—and in particular the proposing of them—are likely to be among the more elaborately verbalized, because the propositions involved are less constrained than in other kinds of betting. Examples of bet proposals are (1) and (2). Uttered in the right context, these represent conditional offers to enter a reciprocal staking arrangement. The stake is fifty

dollars and the propositions are, respectively, that Barcelona will win and that someone referred to as 'she' will forget something.

- (1) I bet you fifty dollars Barcelona win
- (2) I bet you fifty dollars she forgets

The examples in (1) and (2) were used by the authors as models in a questionnaire to elicit bet proposal constructions in different languages. This was done by presenting short descriptive scenarios to informants—one involving watching a football match on television, the other where someone has to remember to do something—and then asking informants to express (1) and (2) respectively in their first language.

The questionnaire was distributed via the Linguist List and has so far been completed by 123 participants, representing a total of 81 languages. Most of the sentential examples in the rest of this paper come from this questionnaire. For examples that are based directly on (1) and (2) translations are not given, to avoid repetition. But in other examples, including ones not drawn from the questionnaire, translations will be given. Glosses are given for all examples except those in English. These are mostly as provided by informants, though we have edited a few.

These sentential examples, drawn from the questionnaire, are used in this paper to illustrate various linguistic points. Most of the data for the survey of source concepts (§7) comes from a different set of data, drawn from dictionaries (though a little of it comes from the questionnaire).

Interpersonal bets are made in the course of conversation, typically following a difference of opinion. In such a situation, making a bet is by no means the only conversational option, so the fact of betting must be established (by an offer or suggestion being made). In addition to declarative constructions, such as those in (1) and (2), offers to bet may take the form of either a question ('Shall we bet...?') or an exhortation ('Let's bet...'). Such tentative approaches would be out of place in an institutional setting, where betting is expected. Further, both the exact stakes and the exact proposition must be established, and this can only be done verbally, whereas in an institutional setting, propositions are largely implicit in the rules of the game. Stakes may be unequal, one party risking more than the other. Finally, if the offer of a bet is taken up, that too must be verbalized, while in institutional settings it may go without saying.

It is reasonable to assume that bets at the individual level are historically prior to bets involving an institution. Institutions tend to grow out of smaller, more informal systems of doing things. One may therefore expect words for betting to develop from lexical items that refer to interaction between individuals.

Bets involve **two parties**, either two individuals or an individual and an institution. They **risk** money or material items of value (stakes) on an outcome. Unequal stakes (odds) are usual in institutional betting, while in interpersonal betting equal stakes are common.

Bets involve **complementary propositions**. One party predicts that an event will happen (or more generally, a state of affairs will be found to pertain), while the other predicts that it will not happen (the state of affairs will be found not to pertain). In

the notation of propositional logic the two complementary propositions may be symbolized by  $p$  and  $\neg p$  ('not  $p$ '). In the case of competitions (games, races, fights and sports matches), which are frequently bet on, there may be a number of possible winners. But bets on competitions are nevertheless still on  $p$  and  $\neg p$  (i.e. a particular competitor will or will not win).

It is possible to bet on propositions that involve oneself or one's interlocutor as a protagonist (typically *I bet ... I can ...*, *I bet ... you can't ...*). However, while this may be an option, it is not the only option. Propositions are frequently concerned with outcomes involving only third parties.

Bets involve difference of **opinion**. Typically they concern future events—in which case they involve **prediction**. Interpersonal bets arise in the context of **arguments**, of the kind illustrated in the English, Canadian French and Italian examples in (3)-(5). In each case, contrary claims are made, followed by the offer or suggestion of a bet.

- |     |  |  |                 |
|-----|--|--|-----------------|
| (3) | Inquirer.  | Why did he leave?  |                 |
|     | First Well Informed Man.   | Old GLADSTONE gave him<br>the sack.  | ← claim         |
|     | Second Well Informed Man.  | No, he didn't. GLADSTONE<br>wasn't in power when<br>BARING left Egypt. It was<br>SALISBURY who dismissed<br>him. | ← counter-claim |
|     | First Well Informed Man.   | <b>I bet you a sov. it was<br/>GLADSTONE.</b>  |                 |
|     | Second Well Informed Man.  | <b>And I bet you a sov. it<br/>was SALISBURY.</b>  |                 |
|     | (February 4, 1893) <i>Punch, or the London Charivari</i> 104       |  |                 |
| (4) | —[...] il va l'embrasser!  | he's going to kiss her!  | ← claim         |
|     | —Non, il l'embrassera pas!   | No, he won't kiss her!   | ← counter-claim |
|     | — <b>Gageons un' bouteille de rhum<br/>qu'il l'embrassera pas!</b> | Let's bet a bottle of rum<br>that he won't kiss her!   |                 |
|     | — <b>Gageons en effette!</b>                                       | It's a bet!  |                 |

Chauveau, P.J.O. (1853) *Charles Guérin, roman de mœurs canadiennes*

- (5) — Mi è stato detto che tu hai un libro in cui sono registrate le tue conquiste amorose: voglio vederlo. It's been said to me that you have a book in which your amorous conquests are recorded. I would like to see it.
- [...]
- Tu non avrai quel libro. You won't have that book. ← claim
- Io l'avrò tra un'ora. I will have it in an hour. ← counter-claim
- Sfido. I defy you.
- **Scommettiamo.** Let's bet.
- **Quanto ?** How much?
- **Cinquanta luigi.** Fifty Louis.
- **Accetto.** I accept.

Mastriani, F. (1870) *I misteri di Napoli: Studi storico-sociali*. Volume 2

In interpersonal bets like these, the bettors are more or less equal in status. They enter into a **reciprocal** arrangement, and they **agree** terms—stakes and propositions, as illustrated in (3)-(5). In bets involving an institution or a game, on the other hand, it is the institution (or the rules of the game) that dictates the range of outcomes that may be bet on (e.g. the horses in a race, the design of a lottery, or the combination of cards that makes a winning hand in a card game).

Staking may be done on trust, with the bettors undertaking to hand over their stake if they make the wrong prediction. But in some cases stakes are relinquished in advance of the outcome, and then taken by whoever wins. In the first case, a **commitment** to pay up is involved on the part of the bettors. In the second case, the act of **depositing** is the more salient aspect of staking.

Any of the above properties of bets may be reflected in the source of predicates meaning BET. In §7.3 we will see which are most commonly selected as source concepts.

Betting may be introduced into a culture through (abrupt) contact with another people. Binde (2005:2) distinguishes between indigenous and non-indigenous gambling, indigenous gambling being "gambling as it appeared in various cultures of the world before the radical shifts that Western colonisation and capitalist expansion brought about". Linguistically, non-indigenous aspects of culture are often reflected in the borrowing of terms from the 'donor' culture. In the present paper we are concerned more with cognitive sources of BET than with the influence of one culture on another, so it is useful to differentiate between conceptual sources that recur due to contact as opposed to those that recur for more purely semantic reasons. More is said about borrowing in §6.

As seen in the OED definition at the start of this section, the English noun *bet* is polysemous between the betting transaction as a whole and the stake in particular.<sup>5</sup> For the purposes of the present investigation, we treat BET as meaning the act of betting, taken as a whole. It may be that the most salient part of bet-making is the stake (indeed this seems to be the case, as shown in §8.2). However, bet-making is fundamentally an event, and it is this sense that we mean when we refer to the concept BET.

### **3 Linguistic literature on betting**

In the linguistic literature, bets have received most attention from the point of view of speech act theory. Bets of the interpersonal kind may be expressed performatively. In being uttered, a proposal such as (6) commits the speaker to a deal, as long as the addressee takes up the offer. As Austin's slogan goes, it 'does something with words' (Austin 1962), as do certain other speech acts, including promising and naming.

(6) I bet you sixpence it will rain tomorrow (Austin 1962:5)

Constructions of the kind in (1), (2) and (6) are also occasionally mentioned in connection with another area of linguistics, that of argument structure (e.g. Herbst et al. 2004:82). The interest here is in the fact that the construction involves four participants: the speaker, the addressee, a stake and a proposition. These can all be seen as basic to the semantics of *bet* (Jackendoff 2002:135). In having four core participants the construction is unusual. Not all four are necessarily expressed, however. Ponsford et al. (2010) sampled 90 constructions from 63 languages with meaning similar to (1) and found four separate participants mentioned in only 27 cases. Much more common are constructions with three participants or fewer.

## 4 Form of the predicate

Predicates meaning BET may take various forms. Three types in particular are frequent: those consisting of (1) just a verb, (2) just a noun, or (3) a combination of verb and noun (in either order).

### 4.1 Verb+noun

In verb+noun predicates, the verb is always semantically general (i.e. a 'light verb'), while the noun is specific. Often the noun means precisely 'bet'. In (7) the noun follows the verb, while in (8) it precedes the verb.

(7) Swedish: verb plus noun (John Lowenadler, Dagmar Divjak)  
*Jag slår vad om 50 dollar att Barcelona vinner*  
I hit bet about 50 dollar that Barcelona win

(8) Udi: noun plus verb<sup>6</sup> (Vladislav Dabakov)  
*ej 100 manaten sporben ki spartaken tašal=e*

let's 100 manat(ERG) bet.do(HORT) that Spartak take(FUT)=3SG

## 4.2 Verb

Verb-only predicates may develop through ellipsis from verb+noun predicates (see §5.3). Where this is the case, the verb is semantically general and polysemous. (e.g. PUT). But there are also verb-only predicates that show no sign of being polysemous with general senses, as is the case with (9) and also with English *bet*.

- (9) Norwegian: verb only (Knut Berg Kaldestad, Eivind Torgersen)
- |            |               |                  |              |                  |               |
|------------|---------------|------------------|--------------|------------------|---------------|
| <i>Jeg</i> | <i>vedder</i> | <i>50 dollar</i> | <i>på at</i> | <i>Barcelona</i> | <i>vinner</i> |
| I          | bet           | 50 dollar        | on that      | Barcelona        | win           |

## 4.3 Noun

Like verb-only predicates, noun-only predicates may develop through ellipsis from verb+noun predicates. The noun in (10) is *vetoa*. In §5.3.1 we will see that this noun can also be used with the verb *lyödä* 'hit'.

- (10) Finnish: noun only (Matti Miestamo)
- |           |                 |               |             |                  |                |
|-----------|-----------------|---------------|-------------|------------------|----------------|
| <i>50</i> | <i>dollaria</i> | <i>vetoa,</i> | <i>että</i> | <i>Barcelona</i> | <i>voittaa</i> |
| 50        | dollar.PARTIT   | bet.PARTIT    | that        | Barcelona.NOM    | win.3SG.PRES   |

## 4.4 Other predicate types

Predicates meaning BET may involve elements other than verbs and nouns. These elements are sometimes adpositional, while in other cases they have grammaticalized beyond their original adpositional role, becoming instead part of a verb+particle predicate. For instance, in (11)-(14), the particles do not mark a nominal, but instead refer vaguely to the overall act of betting.<sup>7</sup>

- (11) Akan (Clement Appah)  
*me-dze fifty dollars to do de Barcelona be-dzi nkonyim*  
 1SG-take fifty dollars put on that Barcelona FUT-assume victory
- (12) Dutch (Dik Bakker)  
*Ik verwed er vijftig euro onder dat ze het vergeet*  
 I bet there fifty Euro under that she it forgets
- (13) Irish (Raymond Hickey)  
*Cuirfidh mé geall air go mbeidh an bua ag Barcelona*  
 put.FUT I promise/bet on\_it that will\_be the victory at Barcelona
- (14) Yoruba (Tunde)  
*Mo le gbowo le wipe Barcelona ma bori*  
 I can put\_money on that Barcelona will win

There are also elements that are between lexical and grammatical, such as 'take'/INSTRUMENTAL (Akan *dze* in (11)), 'give'/'about, concerning' (Vietnamese *cho* in (15)), and 'side'/'in favour of' (Basque *alde* in (16)).<sup>8</sup>

- (15) Vietnamese (Dao Manh Cuong)  
*Tôi cá năm mươi dollars cho Barcelona thang*  
 1SG bet fifty dollars give Barcelona win
- (16) Basque (Ibon Tamayo)  
*50 dolar bartzelona-n alde*  
 fifty dollar barcelona-of favour  
 'Fifty dollars on Barcelona'

## 5 Polysemy and semantic shift

In this paper we are interested in the source concepts for BET. In attempting to discover these we will rely on the polysemies of the relevant predicates (method to be presented in §7). Close connections between polysemy and semantic change have been observed by a number of authors. Gyóri (2002:149-50), for instance, writes:

There is a basic congruence between the two phenomena in the sense that both constitute a relationship between meanings in which one (or more) are derived

from another one. If a lexical item undergoes semantic change, polysemy might form the first step in the process, with both the basic and the derived meaning existing in parallel [...] It appears to be a matter of the time that has elapsed since the point of the divergence of meanings whether a cognate relationship (if not obscured by sound change) is considered semantic change or polysemy

Developing on Sweetser (1990), Gyóri takes ambiguity, polysemy and changed meaning to be "three successive stages in one and the same diachronic process" (Gyóri 2002:150).

Zalizniak (2008) uses the term **semantic shift** to cover both diachronic extension to new senses (including in cases where there is formal change) and polysemy:<sup>9</sup>

By *semantic shift* I understand any variation of meaning of a given word, be it synchronic or diachronic, i.e., the relation between two different meanings of a polysemous word or the relation between two meanings of a word in the course of semantic evolution. Synchronic and diachronic semantic shifts are indeed two different sides of the same phenomenon. (2008:217)

The seminal work that has documented source concepts for a large number of target concepts across a wide range of languages is Heine and Kuteva (2002).

Importantly for us, however, this work does not cover the notion of BET as a target concept.<sup>10</sup> In fact, Heine and Kuteva concentrate on source–target pairs where the target—and possibly also the source—has a grammatical, rather than lexical, function. In the present article we are concerned mainly with sources and targets (the target always BET) that are both lexical, rather than grammatical. Zalizniak's 'Catalogue of

Semantic Shifts' (Zalizniak 2008) is closer to our concern in this respect. Zalizniak and colleagues have collected a large number of pairs of source and target concepts (i.e. semantic shifts) that are attested in at least two languages.<sup>11</sup>

Sweetser (1990:3) notes that "there is reason to posit a close semantic and cognitive link between two senses if one is regularly a historical source for the other", and Zalizniak notes that one of the uses of cataloguing semantic shifts is to provide "linguistic evidence for the nature of cognitive processes" (2008:219). In terms of the present study, according to this view, any concept that is cross-linguistically common as a source of BET can be taken to be cognitively closely linked to BET. Another use that Zalizniak mentions for her approach is "as a semantic plausibility criterion in linguistic reconstruction" (2008:219). The idea here is that knowing that a particular concept is frequently a source for a given target can be used as supporting evidence where that concept is a candidate source for a new instance of the target. We return to Zalizniak's approach in discussing methodology in §7.2.

In formal terms, we find that some semantic changes towards the meaning of BET are accompanied by formal change, while others are not. Where there is formal change, this may involve either addition of morphological material (what Zalizniak (2008:224) calls 'semantic shift accompanied by word-formation') or reduction (ellipsis).<sup>12</sup> (In principle both kinds of formal change could be found together.) Finally in this section we give examples of these three kinds of semantic shift, with BET as the target concept.

## **5.1 No change in form**

The range of senses of a predicate may be extended without any change to the original form of the predicate. Before 1466, French *parier* meant 'Accoupler, apparier' (Rey 2001), i.e. 'pair up (for competition)'. By 1549, the same form meant 'Engager (comme enjeu) dans un pari', i.e. 'stake in a bet'.

Another example is Russian *sporit'*, which means both 'argue' and 'bet'. Herman (1975:353) gives the basic meaning of the Slavic root (*per/pir/pr/por*) as "to press, push; to quarrel", suggesting that the sense of 'argue' is earlier than 'bet'.

Whether there can be meaning change without formal change has a lot to do with the morphological system of a particular language.

We consider it reasonable to assume that in the above examples, PAIR UP (from French *parier*) and ARGUE (from Russian *sporit'*) are source concepts for BET.

## 5.2 Addition of reflexive and reciprocal marking

A number of Romance and Slavonic predicates take on the sense of BET when a reflexive marker is added. This is illustrated in Table 1, with reflexive marking shown in bold.

[INSERT TABLE 1 ABOUT HERE]

Waltereit's (2000) typology of reflexives is helpful in explaining the use of reflexive marking in the context of betting and other staking constructions. He identifies three types of construction according to the relation between the agent and the patient. In **direct reflexives** the whole of the agent is also the patient. In **partitive reflexives** a part of the agent is the patient—in particular a body part. And in **metonymic reflexives**

the patient is merely something that is associated with the agent—i.e. there is no coreference.

In terms of staking constructions, all three of Waltereit's types are relevant. Where it is one's whole self (body, life) that is staked, we have direct reflexive. Where it is a body part that is staked, we have partitive reflexive. And where it is money, we have metonymic reflexive. The three types may be taken as forming a continuum, with, for instance, staking one's reputation as intermediate between direct and partitive, and highly valued property as intermediate between partitive and metonymic. Betting—as opposed to staking one's life, say—comes at the metonymic end of the continuum, with money, something merely associated with the bettor, being risked.

There is some evidence that reflexive marking is more likely to be used at the direct staking end of the continuum than at the metonymic end. In Spanish, reflexive and non-reflexive forms of *apostar* are both possible (*me apuesto* and *te apuesto* respectively), but according to an informant, the reflexive form is used only in *me apuesto la vida* 'I stake my life', while the non-reflexive form is used for betting money. Similarly, with Slovene (Grad and Leeming 2006), for ordinary betting, plain *staviti* is used, while for risking more inalienable items (one's shirt, everything), reflexive *vse* is used.

Bulgarian *xvasham* 'hold' becomes *xvasham se na bas* 'bet' partly by the addition of reflexive marking. Here, betting seems to be construed as holding oneself to something (possibly mutually)—i.e. offering one's body or life as security, an instance of Waltereit's direct reflexive type, at least in origin.

Serbian *kladiti se* 'bet' seems to be related to *klasti* 'lay, put', Herman (1975). Czech and Polish predicates are also based on PUT. It may be oneself that is 'put' (Waltereit's direct reflexive) or something (e.g. money) in one's possession (Waltereit's metonymic reflexive; 2000:271).

From the examples in this section, CAPTURE (Romanian), PLAY (Sicilian), HOLD (Bulgarian) and PUT (ON) (Serbian, Czech and Polish) may be taken to be source concepts for BET.

As mentioned in §2, betting of the interpersonal kind involves a reciprocal situation, and in a number of Bantu languages, it is a reciprocal marker that gives a predicate the sense of BET, as illustrated in Table 2. The reciprocal marker in each case is *-an-*.

[INSERT TABLE 2 ABOUT HERE]

Here we find that the source concepts are ARRANGE and AGREE (Bemba), THROW DOWN (Giryama), RISK and SEND (Kikongo), ARGUE (ABOUT) (Silozi), DEFEAT and COMPEL (Swahili), and FIX (FOR) and PUT (FOR) (Zulu).

### 5.3 Ellipsis

Bets between individuals are made in the context of conversation, as illustrated in §2. Parts of bet proposal constructions that are understood from the speech situation or from the preceding dialogue may be left implicit. All of the key elements can be subject to ellipsis to some degree—bettors, predicate, stake, proposition (Ponsford in preparation). Here we are concerned with ellipsis as it affects predicates. In §4 we identified three main types of predicate: verb+noun, verb-only and noun-only (though acknowledging the existence of other types). In most cases where the predicate consists of a

combination of verb and noun, the verb is semantically general and the noun is specific. Despite this difference in specificity, there is evidence that *either element* may be dropped, resulting in a one-word predicate.

Stern (1968:167) describes the redistribution of meaning in ellipsis as follows:

If, for some reason, a word is omitted from a compound expression, which still retains its meaning, the remaining words or word have to carry the total meaning that formerly belonged to the whole expression. If the omission becomes habitual, the result may be a sense-change for the remaining word or words.

A well known case of redistribution of function is the latter part of Jespersen's classic (1917) cycle. In French, for example, negative marking was at one stage distributed over *ne* and *pas*, but later came to be marked by *pas* alone.

For betting constructions we do not have diachronic evidence in the form of earlier texts with fuller constructions and later texts with reduced constructions. Instead, to identify likely cases of ellipsis we rely on alternative forms, both synchronically possible, where one is a subsequence of the other.

Although it is possible to combine verb+noun predicates with a stake, there is a tendency to drop either the verb or the noun when the stake is mentioned. This may be due to the awkwardness of uttering both together, or to the fact that mentioning a stake will itself evoke the notion of betting, or, as an anonymous reviewer points out, due to competition between noun and stake for the direct object position.

### **5.3.1 Ellipsis of the verb**



### 5.3.2 Ellipsis of the noun

In the Persian constructions in (20) and (21) there is alternation between CONDITION+TIE and just TIE. Synchronically this amounts to ellipsis—i.e. not using the full available construction. In this case it is the semantically more specific item that is left out.

(20) Persian (Haïm (1959); glossing ours)  
*sar-e in shart mibandam*  
 on that condition tie.1SG  
 'I will bet on that'

(21) Persian (Haïm (1959); glossing ours)  
*panjah rial basteh ke na-rud*  
 fifty rial tie that NEG-go  
 'I will bet 50 Rials that he will not go'

It is interesting to note, incidentally, that it may be the verb, rather than the noun, that is dropped, as in (22).

(22) Persian (Majid KhosraviNik)  
*Shart-e 50 dolar ke yadesh mireh*  
 condition-PARTICLE 50 dollar that 3SG will forget

Pashto *waham* 'hit' occurs both in conjunction with *shart*, as in (23), and on its own, as in (24).

(23) Pashto (Wahidullah Mayar)  
*zə panzus dolara shart waham če Barcelona yusi*  
 1SG fifty dollar condition hit.1SG that Barcelona win

(24) Pashto (Wahidullah Mayar)  
*zə pə Barcelona panzus dolara waham če yuyesi*  
 1SG on Barcelona fifty dollar hit.1SG that win

In the examples in this section, a semantically specific noun is left out, where it could have been included. As a result, the remaining verb—previously a semantically general 'light verb'—takes over the share of the meaning originally borne by the noun.

In these examples of noun ellipsis, TIE is a source in Persian and HIT is a source in Pashto.

## 6 Borrowing

A predicate meaning BET may arise through borrowing. We can distinguish two kinds of borrowing, one easier to detect than the other. First there is the kind where both form and meaning are adopted. The other kind is where only the conceptualization—the way the meaning is packaged—is borrowed. This second kind of borrowing is often called 'calque', and for convenience we will use this term, keeping 'borrowing' for cases where both form and meaning are adopted. When calquing is pervasive, and occurs between language systems that are already close, it may be seen as conceptual diffusion.

Greenberg (2005:8) writes:<sup>13</sup>

Sometimes semantic similarity without similarity in the formal means of expression is present in contiguous languages of similar or diverse genetic connection. [...] Languages spoken by people in constant culture contact forming a culture area tend to share many such semantic traits through the mechanism of diffusion.

We find many cases of borrowing among words for BET. Often there is a clearly identifiable cultural cause, particularly colonization. Words from Arabic, Dutch, English, French, Portuguese, Russian and Spanish are particularly noticeable. Arabic

*xāṭar* is found in North Africa; Arabic/Persian *shart* is found between the Middle East and India and on the east coast of Africa. English *bet* is found in the West Indies, India, China and New Zealand. French *pari* and *parier* are found in West and Central Africa, as well as in Romania and Russia. Portuguese *aposta* and *apostar* are found in South America, South-East Asia and Angola. Russian *sporit'* is found in the Caucasus. And Spanish *apuesta* and *apostar* are found in South America.

Calquing (conceptual diffusion) is likely to be the reason for neighbouring languages having the same source concept but using different forms. Examples include those in Table 3.

[INSERT TABLE 3 ABOUT HERE]

## 7 Survey of source concepts

In order to learn about the source concepts of BET, and in particular the frequency and geographical distribution of different sources, we surveyed predicates meaning BET across 177 languages, looking at the senses they have besides 'bet'. The method we use is based on information from dictionaries. Detailed etymologies exist only for a relatively small number of languages, particularly European ones. In order to survey more widely, we used polysemy as an approximation of etymology. The basic premise—to be qualified below—is that where a polysemous word has BET as one of its senses, the other senses will be *earlier* senses, and it is these that we seek to establish. A similar approach is taken by Zalizniak, whose view of semantic shifts "is based on synchronic polysemy, which is more certain, than the reconstructed semantic evolution; meanwhile the resulting generalizations should be basically the same" (Zalizniak 2008:219).

## 7.1 Preliminary assumptions

The method rests on a number of assumptions. First, we assume that concurrent senses of words meaning BET are also earlier senses, as long as they are conceptually simpler than BET. (Exceptions to this will be discussed below.) Betting is complex in terms of the number of participants—two agents (one a person, the other either a person or an organization), a stake (possibly two different stakes) and some kind of outcome. It involves relations among these participants—the relation between the bettors, the relation between each of the bettors and their stakes, the relation between each of the bettors and their predicted outcome, and the relation between the contrary predictions. There is conditionality: who takes the stakes depends on the outcome. Given such complexity, it is unsurprising that more other senses of predicates meaning 'bet' are less complex.

We then note that through ellipsis, a sense that is distributed over a two-word predicate may end up being carried by just one of those words. This being possible in principle (and seemingly attested in certain BET predicates, as shown in §5.3), we treat each word in two-word predicates as a potential single-word predicate. Accordingly, we treat the concurrent senses of each word in two-word predicates as potential source concepts. Finally, we drop the distinction between known and potential source concepts, and simply treat the concurrent senses of all predicate words, whether in one-word predicates or two-word predicates, as sources.

The basic approach, then, is to treat other senses as earlier senses. In this section we list a number of classes of 'other sense' that are treated as exceptions to this rule, and *not* included as earlier senses.

Constructions that are used to propose or suggest bets tend to develop into stance-marking constructions. Here, expressions like English *I bet* and *wanna bet?* and similar expressions in many other languages are used not to risk money on outcomes but to indicate something about one's beliefs, such as strong belief. In this paper we are interested in betting and pre-betting functions. We are not concerned with post-betting functions like stance-marking. On the basis of historical evidence from at least some languages (including English), we treat mental (including attitudinal) senses such as PREDICT, BELIEVE, BE CONFIDENT as more likely to be later senses than earlier senses, and therefore exclude them as source concepts.

We are primarily interested in sources that are independent of each other. This leads us to exclude two further classes of predicate (and consequently the senses they carry): (a) borrowings that meant 'bet' in the source language and (b) all but one member of sets of cognates. Borrowings that meant 'bet' in the source language tend to have the same polysemies in the source and target languages, and provide no information about independent sources. Such borrowings may develop senses that were not present in the source language, but these senses are irrelevant for present purposes.

Including several members of a set of cognate predicates would overestimate the other senses that they share.<sup>14</sup> Therefore, one member of each set of cognates is included and the rest are excluded. For example, only one member of the set {*wedden* (Dutch), *wager* (English), *gager* (French), *wetten* (German)} is included in the sample.

While borrowings (as defined in §6) are excluded, calques are included. This is not merely because detecting them is difficult (as noted also by Zalizniak 2008:225),

but because they may bring with them elements of meaning that were not present in the predicates that are modelled on—additional source concepts, in other words.

## 7.2 Method

The method we use is to look up in dictionaries polysemous predicates that have 'bet' as one of their senses. We do this for as many languages as we have information for. Some of the dictionaries we used were in libraries, while others were in online collections. For each predicate, we record the 'other senses'—those besides 'bet'—and where the predicate consists of two lexical words, e.g. a verb and a noun, we take the other senses of both words.

We did not seek to include or exclude particular kinds of betting. Nor would this have been possible, since in most cases dictionaries do not give sufficient information to differentiate between types of bets.<sup>15</sup> It is also worth noting that some predicates relating to betting are used only in *reporting* bets. Although in our exposition here we have concentrated on predicates used in performing *acts of betting*, the survey does not distinguish reporting from performing. (Again, this distinction is not usually made in dictionaries.) Where a language had distinct terms for betting and gambling, it was the betting term that we made use of.

The senses listed in the dictionary, which are mostly given in European languages, are first coded as English concepts. Closely related concepts are then collapsed together. This is done to boost the counts of the major concepts. For example, BEAT, HIT and STRIKE are collapsed as HIT. Similarly, LAY, PLACE and PUT are collapsed as PUT.<sup>16</sup>

We use English labels for concepts (written in small capitals). These labels are used as if they were language-independent. In reality they are not: each language distributes meaning differently over forms, and English is just one such distribution. However, we use them to get an impression of the rough semantic sources of BET.

Two issues that arise in standardizing concepts are (a) when to merge concepts and when to leave them separate,<sup>17</sup> and (b) how to classify complex concepts that contain two or more simpler meanings.

In the absence of an adequate standard classification of concepts, it is a matter of judgement (ours in this case) whether to treat two concepts as belonging under a single, more general, concept, or whether to keep them separate. The first merger is between concepts that differ in terms of verbal vs nominal construal. Pairs such as AGREE/AGREEMENT, ARGUE/ARGUMENT and COMPETE/COMPETITION are merged as AGREE, ARGUE and COMPETE respectively. An example of a merger that could have been made but was not is between COMMIT and CONTRACT. A case could also be made, however, for merging CONTRACT with SECURITY. And CONTRACT also has affinity with AGREE, so a merger would be possible there also.

An example of a concept that could have been put in different groups is HOSTAGE, which we put under SECURITY. HOSTAGE also has an element of capturing or entrapment however, and could therefore have been put in the TRAP group.

Dictionaries usually have their own groupings of senses. We will shortly see an example. These groupings may coincide with the kinds of grouping that we need, but they may not. For instance, a group of senses may be too far apart for our purposes. So we do not make use of such groupings.

Once the dictionary senses have been translated into concepts (expressed in English) and close concepts collapsed, the collapsed concepts are counted. Each polysemous word contributes to the counts of all the concepts it denotes (besides BET). So a word that denotes two concepts in addition to BET will contribute to the counts of each of those two concepts. And where a predicate consists of two words, the concepts denoted by *each* word are counted.

The above method is illustrated in Figure 1 with an example from van Acker's Kitabwa-French dictionary.<sup>18</sup> The word *kupinga*, which has French 'parier' (=English 'bet') as one of its senses,<sup>19</sup> also has senses 'promettre' and 'porter à deux un objet suspendu à une perche'.<sup>20</sup> We translate these into English, at the same time standardizing them as the concepts PROMISE and CARRY TOGETHER. These concepts are then put with other concepts in groups which form our source concepts. We put PROMISE under the broader concept of COMMIT, and CARRY TOGETHER under CARRY. So the Kitabwa word *kupinga* adds one to the counts for each of COMMIT and CARRY.

[INSERT FIGURE 1 ABOUT HERE]

A second example is Bahnar *pojah* (Dourisboure 1889) in Figure 2. As well as meaning 'parier' (= 'bet'), it also means 'avoir une altercation, se disputer'. Translating and standardizing, we get ARGUE. So Bahnar *pojah* adds one to the count for ARGUE.

[INSERT FIGURE 2 ABOUT HERE]

In §1 it was mentioned that English *bet* is ambiguous between denoting the event of betting as a whole and denoting just the stake. The same ambiguity occurs in a number of other languages, including (European) ones used as metalanguages in dictionaries. Since we wanted to assign different concept labels to the two meanings, we

had to make judgements about whether a gloss in a dictionary was intended to have one sense or the other or whether it covered both.

The term *bet* (and other European words for betting, like French *parier* and German *wetten*) is sometimes used to translate non-European words that do not involve staking. Commonly, in translations of folk tales, races are referred to as 'bets' when they are arranged by the contestants themselves, even though no stakes are involved—the only thing that is risked is pride or reputation. Such a meaning does not conform to what we intend by 'bet'. However, we believe that the number of these non-staking senses is not enough to skew the results.

The present approach to sampling is structured around predicates, rather than languages. All polysemous predicates found in dictionaries, where one sense is 'bet', were included in the sample. The rationale for this approach is that we had no reason to assume that sources *within* a language would be any less independent than sources *across* languages. For some languages several predicates are included in the sample, while for other languages there is just one.

Similarly, sampling is not restricted to any particular historical period. Again, the sources that occur over time may be as diverse as sources between languages. English, for instance, has had predicates with PUT (*lay*), GO (*go*), HOLD (*hold*), TAKE (*take*) and SECURITY (*wager*) as sources. These are quite different concepts.

Languages that have only monosemous predicates for BET are not represented in the sample. However, all predicates meaning BET are at some stage polysemous, and whether the predicate is recorded in a dictionary at a polysemous stage or a monosemous stage will be random, so should not skew the results.

It should be said that for the sample to be representative of the lexicalization of betting across languages, the dictionaries must be equally available for all languages. This is unfortunately not quite the case, but apart from more detailed coverage of Europe than elsewhere, we have no reason to suspect significant skewing by availability of dictionaries.<sup>21</sup>

### **7.3 Results**

The sample contains 271 polysemous predicates with BET as one of their meanings. Ninety-four of these predicates consist of two words.<sup>22</sup>

#### **7.3.1 Frequency of sources**

After translating, standardizing, and grouping senses, we arrived at 177 (superordinate) concept labels. We are interested particularly in those concepts that are cross-linguistically frequent. The most frequently occurring concepts (those with frequency  $\geq 5$ ) are shown in Table 4. The group label is given in the left-hand column, member concepts are in the middle column, and the overall frequency of the group is in the right-hand column.

[INSERT TABLE 4 ABOUT HERE]

Some of these concepts tend to occur mainly or exclusively in conjunction with others. That is, they do not stand on their own with the meaning of BET. More will be said in §8.1 about concepts realized as verbs that occur only in conjunction with another item. Concepts that are frequent *regardless* of whether the predicate involves two words or just one word are SECURITY, PUT, ARGUE and COMMIT.

#### **7.3.2 Geographical distribution**

As mentioned above, the predicates are from 177 languages. Their geographical distribution is shown in Figure 3.<sup>23</sup> The languages in the sample are listed in §12 by Ethnologue area (Lewis 2009).

[INSERT FIGURE 3 ABOUT HERE]

It is clear from Figure 3 that betting is lexicalized (and therefore also attested as a phenomenon) in many parts of the world.<sup>24</sup> There are predicates for BET in all areas except parts of South America, the northern part of North America, northern Asia and parts of North Africa. Also, the only language in Australia with a predicate for BET is Australian Sign Language, which is related to European and American sign languages.

One of the frequent concepts mentioned in §7.3.1, CUT, turns out to be limited to West/Central Africa, as shown in Figure 4. As mentioned in §6, this may be the result of conceptual diffusion.<sup>25</sup>

[INSERT FIGURE 4 ABOUT HERE]

The other frequent concepts, however, are more typical of the overall distribution of betting predicates. Compare, for instance, Figure 5 (SECURITY) and Figure 6 (PUT) with Figure 3.

[INSERT FIGURE 5 ABOUT HERE]

[INSERT FIGURE 6 ABOUT HERE]

## **8 Discussion**

### **8.1 Semantically light verbs**

BET is a complex concept, more complex than any of its sources. Some sources, however, are especially simple, such as DO, GIVE, GO, HIT, HOLD and PUT. All of the above concepts are attested as sources of BET, and all are frequent. However, some of

these sources occur on their own (possibly through ellipsis), while others tend to occur only in conjunction with another, more specific, source (in the form of a noun). In this section we look at which semantically light verbs can stand on their own with the meaning of BET and which need support.

It is quite common for a noun meaning BET to be combined with a verb meaning DO. However, we have found only one case where a predicate meaning BET has DO as the sole source. This is Italian *fare*, used by one respondent to our questionnaire (25). DO therefore seems not to serve readily as a source concept for BET.

- (25) Italian (Adriano Allora)  
*facciamo* 50 *dollari* *che* *il* *Barcellona* *vince?*  
do.1PL 50 dollars that MASC Barcelona win.3SG  
'Shall we bet (lit. do) 50 dollars that Barcelona win?'

In the following examples from Russian, Welsh and Zulu, GIVE is the sole source of BET. Apart from these we have found few examples where GIVE is the sole source.<sup>26</sup>

- (26) Russian (Anna Filippova)  
*Dayu* 50 *dollarov,* *chto* *Barcelona* *vyigraet*  
give.1SG 50 dollars that Barcelona win
- (27) Welsh (Laura Arman)  
*ro* *i* *bum(p)-deg* *dolar* *ar* *Barselona* *'n* *ennill*  
give.FUT.1SG 1SG DIROBJ\five-ten dollar on Barcelona PRED win
- (28) Zulu (Nhlanhla Mathonsi)  
*ngi-nga-ku-nika* *ama-dola* *shumi* *ama-hlanu* *u-ya-khohlwa*  
1SG-can-2SG-give CLASS6-dollar ten CLASS6-five 3SG-PRES-forget

GIVE differs from other semantically general sources in that where it occurs (without the need to reverse the polarity of the proposition) it is usually not accompanied by a noun.

GO, another semantically fairly general concept, seems to be a little more prone to being a source of BET. It is found as the sole predicate word in English (*go*, frequent in the 19th and early 20th centuries, with examples like (29)), Sicilian (*andàre* Ispanu 1851) and Spanish (*ir* Neuman and Baretto 1827), as well as combining with a more specific noun in other languages.

- (29) I'll **go** you a pair of gloves he eats it with a knife.  
(September 22, 1912) *New York Times*

HIT is another concept that occurs commonly in bet predicates but is rarely the sole source concept. We have just one example, (24) from Pashto (see §5.3.2).

HOLD occurs in combination with a more specific noun. But it also occurs in a number of languages on its own, including English (*hold*, up to the 19th century). In Bulgarian it occurs without a noun, but with reflexive marking (§5.2).

PUT occurs both on its own, as in examples (30)-(32), and in combination with a noun meaning 'bet', as in (33)-(36).

- (30) Hebrew (Ariel Gutman)  
*ani sam xamifim fekel fe-bartselona lokaxat*  
 1SG put.PRES.SG.MASC 50 shekel.SG that-Barcelona take.PRES.SG.FEM
- (31) Sotho (Mokgale Makgopa)  
*Ke beelana le wena Pula 50 gore o tlaa lebala*  
 1SG put.APPL.RECIP with 2SG Pula 50 that CLASS1 FUT forget
- (32) Wolof (Ndao Dame)  
*tékk naa cinquante dollars dina ko fätte*  
 put 1SG fifty dollars FUT:3SG REL\_MK R forget
- (33) Georgian (Manana Topadze)  
*nidzlav-s v-deb ormocdaat dolar-ze, rom daavic'q'deba*  
 bet-DAT 1SUBJ-to\_put:PRES 50:DAT dollar-on CONJ forget:FUT:3SUBJ

- (34) Greek (Constantinos Gabrielatos)  
*Sou vazo stixima peninta dollaria oti i Barcelona tha nikisei*  
 to\_you place.1SG bet fifty dollars that FEM.NOM Barcelona FUT win.SUBJUNC
- (35) Romanian (Andrei Avram, Isabela Iețcu)  
*Pun pariu 50 de dolari că o să uite*  
 place.1SG bet 50 dollars that will forget
- (36) Tamil (Meganathan Rama)  
*Naan aimbadhu dollar pandhayam kattur-een Barcelona jaikkum*  
 I fifty dollars bet put-1SG Barcelona win.3SG.FUT

It should be noted that the concepts listed above are not equally semantically light. For instance, HIT is more specific than DO, in the sense that instances of HIT may be expressed with DO, but not vice versa. However, both of these concepts are rare as unique sources for BET. DO may be just too vague to serve. HIT is more specific, but perhaps in the wrong way: betting is difficult to construe in terms of hitting. The act of betting is more akin to putting, since stakes tend to be put down as part of the act. This may explain why PUT is a more frequent source.

## 8.2 Profiled relations

Concepts profile particular entities and relations within a semantic frame. The profile of an expression is "the specific **focus** of attention within its immediate scope" (Langacker 2008:66; bold original), where 'immediate scope' is the part of the semantic domain (frame in other terminology) that is 'onstage'.

For Croft and Cruse (2004:15), "[t]he profile refers to the concept symbolized by the word in question." It is set against a base, which is "that knowledge or conceptual structure that is presupposed by the profiled concept." The base is also "identical to Fillmore's [notion of] frame". According to both Langacker's and Croft and Cruse's interpretation, the profile is what is salient. In considering the conceptual sources of

BET, it is useful to ask what entities and relations are profiled by the most frequent sources, since it is reasonable to expect the earlier profile to influence the form of the derived betting construction. The two most frequent sources—SECURITY and PUT, as well as most of their member concepts (see Table 4)—profile either a thing or the relation between a person and a thing. In terms of betting, this means that the most frequent profile is of either the stake or of the relation between one (or both) of the bettors and the stake.

The next two most frequent sources—ARGUE and COMPETE—profile the relation between two people (the bettors)—that is, the interpersonal relation.

For reasons of space, we do not go beyond looking at the profiles of the top four concepts. However, a word should be said about the absence of concepts profiling the proposition. A number of concepts profiling the relation between a person and a proposition (e.g. PREDICT, BELIEVE) were excluded as possible sources, as explained in §7.1. However, these account for only a tiny number of senses of betting predicates (seven, in fact).

In general, then, betting tends, cross-linguistically, to be construed as a relation between bettor and stake or (less often) between two bettors. It is rarely construed as a relation between bettor and proposition.

### **8.3 Indigenous gambling and the lexicalization of BET**

It is interesting to compare Figure 3 with Binde's map of the prevalence of indigenous gambling in Figure 7 (Binde 2005:3). Binde divides the world into areas where (a) gambling is widespread, (b) gambling occurs among some peoples/groups, and (c)

gambling is absent or very uncommon. The two maps are based on independent sources of information—Figure 3 on lexicalization and Figure 7 on anthropological research.

[INSERT FIGURE 7 ABOUT HERE]

In Binde's map there are large areas where indigenous gambling is absent or very uncommon in most of South America; in southern Africa, in northern Asia, in Greenland and in most of Australia and Polynesia. Interestingly, these correspond fairly closely to the areas where betting is not lexicalized. One exception is southern Africa, where indigenous gambling is absent or very uncommon but betting is lexicalized in several languages.

There is also correspondence between Binde's areas of widespread gambling and areas where betting is most densely represented—Europe, Central and West Africa, India, Southeast Asia and the west coast of South America. The area of widespread gambling in North America, though, corresponds to a moderate amount of lexicalization of betting.

Binde's areas where there is 'gambling among some peoples/groups' correspond on the whole to areas where betting is lexicalized in a few languages—East Africa, Central Asia, the Middle East. Again, there is a difference in the far north of America, with gambling attested, but no lexicalization of betting found.

It seems overall that incidence of indigenous gambling and extent of lexicalization of betting are similarly distributed.

#### **8.4 Origin in Eurasia/the Mediterranean?**

An anonymous reviewer suggested that the concept BET might have been "first conceived somewhere in Eurasia or around the Mediterranean and [have] been spreading around the world from there", by processes of "colonization and globalization". 'Eurasia' was qualified as "excluding much of northern and central Asia". On the basis of this hypothesis, the reviewer suggested partitioning the data into those source concepts that are found in Eurasia/the Mediterranean and those that are found elsewhere and testing for significant difference in the frequency of concepts in the two regions. A significant difference would be consistent with spread from the Eurasia/Mediterranean region to the rest of the world.

It should be pointed out that a finding of no significant difference would also be consistent with two other possibilities. The first is spread in the other direction (the rest of the world influencing Eurasia/the Mediterranean). This we accept as being implausible, given the general direction of colonization. But another, more important, alternative interpretation of no significant difference is that the same source concepts are exploited independently in different parts of the world.

A significant difference between source concepts from the two regions would be more informative, being positive evidence of independence of sources in the two regions.

Although the test could not be conclusive if no significant difference were found—for the reason just mentioned—we carried out the suggested partitioning and obtained frequencies of source concepts separately for (a) Eurasia/the Mediterranean and (b) the rest of the world.<sup>27</sup> The frequencies for the most frequent sources—those included in Table 4—are shown in Table 5.

[INSERT TABLE 5 ABOUT HERE]

The difference turns out to be significant ( $X^2 = 32.5094$ ,  $df = 20$ ,  $p = 0.03816$ ). This finding would suggest independence of sources between the two regions, rather than conceptual diffusion from one region to the other. However, if we consider only the five highest frequency concepts (SECURITY, PUT, ARGUE, COMPETE, COMMIT), which are likely to give the most reliable estimate of relative frequency, there is no significant difference between the two regions ( $X^2 = 4.4156$ ,  $df = 4$ ,  $p = 0.3527$ ). This absence of a significant difference for the most frequent sources is consistent with either influence of one region on the other (i.e. conceptual diffusion) or with the sources being independently likely (or unlikely), regardless of influence between languages.

## 9 Concluding remarks

The main finding is that the most common sources of BET are ones that profile the relation between an agent and a thing (e.g. SECURITY, PUT) or—somewhat less often—the relation between two agents (e.g. ARGUE, COMPETE, AGREE). In terms of the target notion of betting, these correspond to the bettor-stake relation and the relation between the two bettors. SECURITY and PUT stand out as being the most common sources by quite a margin, as well as being well distributed across languages and geographically. These may be taken to be conceptually the closest to BET.

In terms of geographical distribution, lexicalization of betting is fairly widespread, being found in Africa, the Americas, Asia and Europe, though not, it seems, in Australia. There are some similarities between this distribution and the prevalence of indigenous gambling, as documented in anthropological work.

## 10 Key to gloss categories

APPL=applicative, CLASS=noun class, CONJ=conjunction, DAT=dative, DIROBJ=direct object, ERG=ergative, FEM=feminine, FUT=future, GEN=genitive, HORT=hortative, IMPERS\_PASS=impersonal passive, MASC=male, NEG=negative, NOM=nominative, PARTICLE=particle, PARTIT=partitive, PL=plural, PRED=predicate, PRES=present, RECIP=reciprocal, REL\_MKR=relative marker, SG=singular, SUBJ=subject, SUBJUNC=subjunctive.

## 11 Acknowledgements

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## 12 Appendix: Languages in the sample

The languages in the sample are grouped here according to the five areas used by Ethnologue (sixteenth edition).

Africa (N=57)	Akan; Amharic; Arabic, Egyptian Spoken; Bamanankan; Bangala; Bangi; Baoulé; Bemba; Bilen; Bubi; Budja; Buluba-Lulua; Cafre-Tetense; Changana; Daza; Duala; Efik; Eton; Éwé; Fe'fe'; Fon; Ganda; Gbaya kara (bodoé dialect); Hausa; Ibani; Igbo; Kigiryama; Kimbundu; Kongo, San Salvador; Konzo; Lingala; Lozi; Luba-Kasai; Mabaale; Malagasy; Mende; Mongo-Nkundu; Myene; Mòoré; Ndonga; Nyanja; Okrika; Oromo; Pahouin; Saho; Shona; Soso; Sotho; Swahili; Swahili, Congo; Tee; Teke-Fuumu; Tigré; Touareg; Wolof; Yoruba; Zulu
Americas (N=27)	Algonquin; American Sign Language; Aukan; Chatino; Choctaw; Cistercian Sign Language; Cree; Haitian; Hopi; Indian Sign Language (North America); Kalispel-Pend D'oreille; Mapudungun; Nahuatl; Navajo; Ojibwe; Onondaga; Otomi, Mezquital; Purepecha; Quichua; Rapa Nui; Reyesano; Saramaccan; Sranan; Tarahumara; Wayuu; Yine; Zapotec
Asia (N=50)	Arabic, Sanaani Spoken; Armenian; Assamese; Azerbaijani Turkish; Bahnar; Bengali; Birman; Bukharic; Cebuano; Chinese, Min Dong; Evenki; Farsi, Western; Ga; Georgian; Hebrew; Hebrew, Ancient; Hindi; Hindustani; Iban; Ilocano; Indonesian; Japanese; Javanese; Kannada; Karen, S'gaw; Khmer, Central; Khwarshi; Konkani; Korean; Kryts; Kurdish; Lahu; Makasar; Malayalam; Mongolian, Halh; Pamango; Panjabi, Eastern; Pashto, Central; Syriac; Tagalog; Tamil; Tboli; Thai; Tibetan; Tulu; Turkish; Turkmen; Udi; Urdu; Uzbek
Europe (N=34)	Aghul; Albanian; Basque; Breton; British Sign Language; Bulgarian; Czech; Dutch; English; Estonian, Standard; Finnish; French; French (Old); French (Saintongeais); Gaelic, Scottish;

	Gitano; Greek; Hungarian; Ingush; Italian; Italian (Venetian); Latin; Lezgi; Lithuanian; Maltese; Polish; Portuguese; Romanian; Russian; Sardinian, Logudorese; Slovene; Spanish; Swedish; Welsh
Pacific (N=9)	Australian Sign Language; Futuna, East; Guhu-Samane; Kiribati; Marquesian; Pohnpeian; Samoan; Toura; Trukese

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## Notes

† Our co-author Anna Siewierska, who passed away in a tragic accident in 2011, was only involved in the first draft of this paper. However, we believe that the spirit of the final version of this paper is still entirely in keeping with her views on linguistic structure, variation, and change.

1. Details of alternative spellings and inflections omitted.
2. d'Anieres (1788) comments on the similarity between gambling (*jouer*) and betting (*parier*):

Il n'y a personne qui ne sente qu'il y a une différence entre jouer & parier. Mais il est des cas où cette différence est difficile à saisir.

There is no one who does not sense that there is a difference between gambling and betting. But there are cases where this difference is difficult to grasp.

Disney (1806) similarly finds it difficult to distinguish the two:

A wager, or bet, is a sort of gaming [=gambling]; and, undoubtedly, bears a near relationship to it; it is attended with some difficulty to define what it is, so as to distinguish it from other gaming.

3. Downes et al. (1976:149-150) write (emphasis original):

The friendly bet or wager [=interpersonal bet in our terms] probably best embodies the distinction between betting and gaming [=gambling in our terms], for it ideally maximizes the element of skill and knowledge in the former by contrast with the pure chance character of the latter. That money is staked on one's opinion or knowledge naturally brings it within the domain of gambling, but it accommodates an almost infinite variety of possibilities. For example, whereas gambling is *in general* linked with the outcome of a future and uncertain event, friendly betting can just as readily be based upon a past event, the only outcome left to the future being the correctness or otherwise of the better's knowledge – about, say, a sporting event, the commonest subject of friendly betting.

4. Sypniewski studied verbal behaviour when buying lottery tickets in local stores. He found the most frequent use of language was simply to name the instant lottery game that the customer wanted to take part in.

5. The OED's etymological information for English *bet* leaves it open as to whether the noun or the verb came first: *bet* is "[o]f uncertain origin; nor is it clear whether the sb. [=substantive] or the vb. [=verb] was the starting-point".

6. Timur Maisak, who collected this example, explains that *sporben* is composed of the noun+verb combination *spor* (< Russian)+*ben* (citation form *bsun*) 'do'.

7. Particles that are genuinely adpositional mark one of the arguments of the predicate—addressee, stake or (occasionally) the proposition. It is debatable whether these markers are part of the predicate itself, but there is no sharp distinction between what is predicate and what is argument. Forms that are syntactically more bound to hosts (e.g. case markers) belong more clearly to the argument rather than to the predicate.
8. Heine and Kuteva (2002) mention paths from TAKE to INSTRUMENTAL (2002:288) and from GIVE to CONCERN (2002:153), although they use Vietnamese *cho* to illustrate a different path, namely from GIVE to BENEFACTIVE (2002:150). Basque *alde* 'side' is also mentioned (2002:271), but the target that is involved is BESIDE, whereas in (16) the sense is 'in favour of'.
9. François (2008:170) prefers the term *colexification* to semantic shift, for being "purely descriptive, and neutral with respect to semantic or historical interpretations".
10. Nor, for that matter, as a source, though BET as a source is not relevant to our concern here.
11. Zalizniak's database of semantic shifts includes examples from Indo-European, Semitic, Altaic and Caucasian languages. It is not yet clear whether BET is among the target concepts covered. The approach has (unrealized) precedents in work by Trubačev (1964) and Schröpfer (1979), according to Zalizniak. Thanks to Bill Croft for drawing our attention to Zalizniak's work.
12. Koch (2008:111) identifies five ways in which "a change of designation involving a target concept  $C_t$  and a source concept  $C_s$  can come about [...] with regard to

the formal properties involved". Three of these correspond to the three types of semantic shift identified here.

13. Originally published in 1953 as 'Historical linguistics and unwritten languages' in A.L. Kroeber (ed) *Anthropology Today*.

14. This issue is mentioned by Zalizniak (2008:225) as one of 'inherited polysemy'.

15. Hilpert (2007:84), who also uses polysemy as recorded in dictionaries in studying semantic shift, mentions another drawback of using dictionaries. He notes that they "do not offer much information about the syntactic behavior of their entries", information which may be "instrumental in the disambiguation of lexical items".

Although meaning is carried by constructions as wholes, and not solely by predicates, meaning is concentrated in the predicate, and this is what is most readily available from dictionaries.

16. The existing inventories of concepts that are known to the authors, such as Buck (1949), and the Intercontinental Dictionary Series Word List that is based on it, lack a number of key concepts, and are therefore not suited to our purpose.

17. An issue discussed also by Zalizniak (2008:225).

18. Kitabwa is a Congolese variety of Swahili.

19. Note that, unlike the cognate *pingana* in Bemba (see Table 2), reciprocal *-an-* seems not to be required in Kitabwa.

20. As mentioned in §7.2, the grouping of senses—here under '1<sup>0</sup>' and '2<sup>0</sup>'—does not play a part in the sampling or the classification of concepts.

21. An anonymous reviewer asks what we did when we found that a language did not have a predicate for BET. The answer is that we did nothing. With hindsight it might have been useful to have kept a record of those languages, but we did not.
22. Among the other 177, there are some that are nouns meaning 'bet'. Most of these would be used in constructions that also have a verb, but dictionaries do not always indicate usage, so we cannot read too much into the high number of seemingly noun-only predicates.
23. The maps in this section were created using Hans-Jörg Bibiko's Interactive Reference Tool (<http://www.eva.mpg.de/lingua/research/tool.php>).
24. Despite Wierzbicka's (1987:103) claim that the notion 'bet' has been lexicalized in a "relatively narrow range of languages".
25. The cutting in question is of a symbolic kind, where bettors link their little fingers and a third party separates the link with a cutting motion. This is attested in eastern Congo and in Ghana (Clement Appah, pc).
26. Among the responses to our questionnaire there were several examples that used GIVE together with negation. Instead of being direct renderings of *I bet you fifty dollars Barcelona win*, these examples expressed the proposition negatively: *I will give you fifty dollars if Barcelona **don't** win*. We took this need to express the proposition negatively as indicating that the language (or the informant) did not have a conventional way of proposing bets. We therefore did not treat GIVE as a genuine source in these cases.
27. Decisions had to be made about what to include as northern and central Asia. We treated Evenki as northern Asian and the Turkic-speaking central Asian states as

being central Asia (and therefore excluded from Eurasia). Mongolia is geographically northern Asian, but since there was a Mongolian empire, we treated Mongolia as belonging with the potential colonizers of Eurasia.

**Table 1.** Reflexive marking in Romance and Slavonic BET predicates.

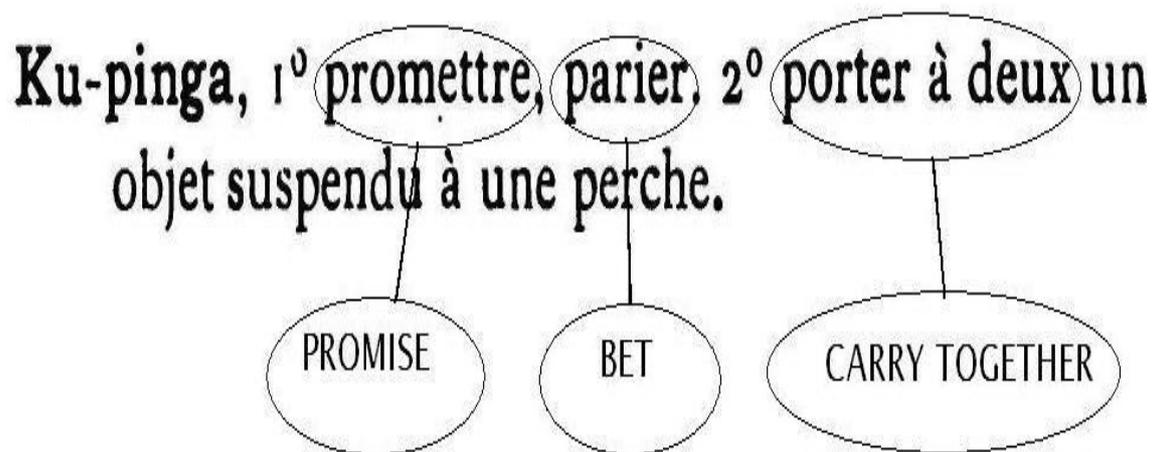
<i>Prinde</i>	'catch, capture'	a <b>se</b> <i>prinde</i> <sup>1</sup>	'bet'	Romanian
<i>jucari</i>	'play'	<i>Jucarisi</i>	'bet'	Sicilian
<i>xvasham</i>	'hold'	<i>xvasham se</i>	'bet'	Bulgarian
<i>vsaditi</i>	'put'	<i>vsaditi se</i>	'bet'	Czech
<i>zatożyć</i>	'put on'	<i>zatożyć się</i>	'bet'	Polish

**Table 2.** Reciprocal marking in Bantu.

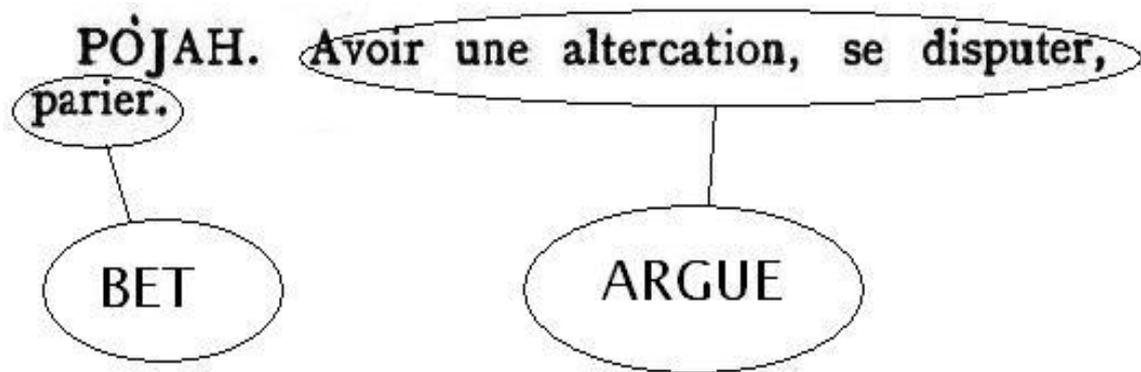
<i>Pinga</i>	'arrange, agree'	<i>pingana</i>	'bet' Bemba
<i>gwagira</i>	'throw down against'	<i>gwagirana</i>	'bet' Giryama
<i>fila</i>	'risk, send'	<i>filana</i>	'bet' Kikongo
<i>pihela</i>	'argue about'	<i>pihelana</i>	'bet' Silozi
<i>shinda</i>	'defeat'	<i>shindana</i>	'bet' Swahili
<i>shurutia</i>	'oblige, compel, necessitate'	<i>shurutiana</i>	'bet' Swahili
<i>bekela</i>	'fix for, put for'	<i>bekelana</i>	'bet' Zulu

**Table 3.** Calque/conceptual diffusion.

Russia/Central Asia	ARGUE	<i>hižet</i> (Aghul), <i>upchu-</i> (Evenki), <i>muruitseku</i> (Mongolian), <i>sporit'</i> (Russian)
Turkey/Iran	ARGUE	<i>moubahisé</i> (Kurdish), <i>iddiaya</i> (Turkish), <i>tāxtan</i> (Persian)
Southern/East Africa	ARGUE	<i>shindana</i> (Nika), <i>pihisana</i> (Silozi), <i>khang</i> (Sotho)
Central Africa	CUT	<i>kudjēnga</i> (Bangala), <i>kpekpe</i> (Baule), <i>gbětsòiso`</i> (Ewe), <i>gòmá</i> (Gbaya Kara), <i>kata</i> (Lingala), <i>tena</i> (Lonkundo), <i>kukesana</i> (Congolese Swahili)
Central Africa	HIT	<i>zop</i> (Bangam), <i>toba</i> (Budu), <i>mia</i> (Efik), <i>lua</i> (Kimbundu), <i>beta</i> (Lingala), <i>piga</i> (Swahili)
India	HIT	<i>mar</i> (Assamese), <i>janag</i> (Baluchi), <i>zadan</i> (Persian), <i>waham</i> (Pashto), <i>lugána</i> (Urdu)



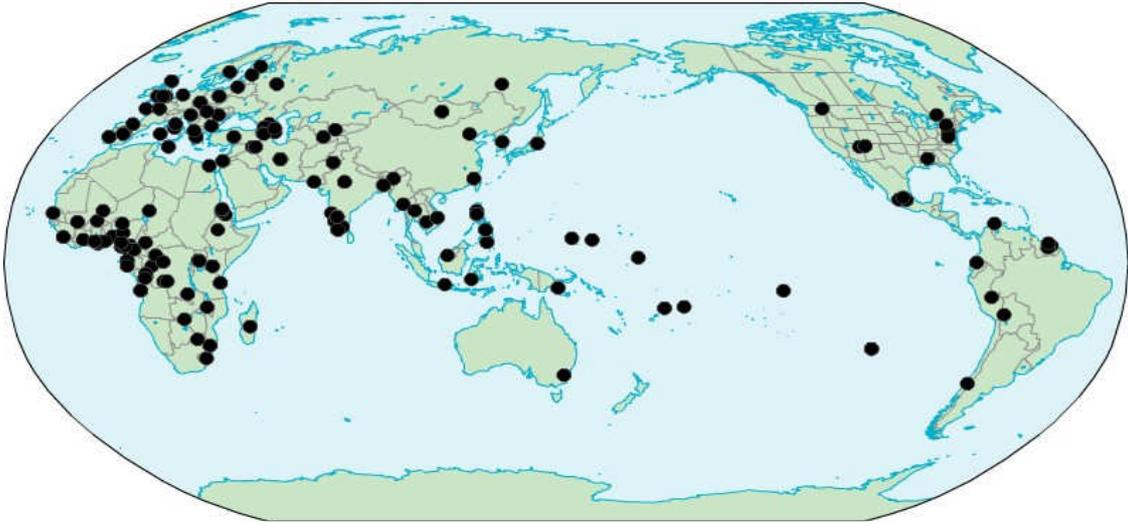
**Figure 1.** van Acker, A. (1907) *Dictionnaire Kitabwa-Français et Français-Kitabwa*.  
État Indépendant du Congo. Entry for *ku-pinga*, showing source concepts.



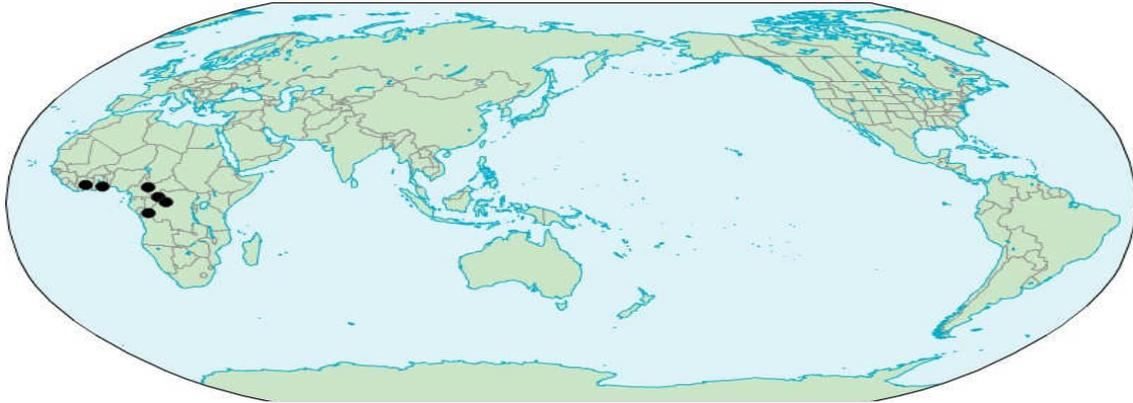
**Figure 2.** Dourisboure, X. (1889) *Dictionnaire Bahnar-Français*. Hong Kong: Société des Missions Étrangères. Entry for *pojah*.

**Table 4.** Most frequent source concepts (frequency  $\geq 5$ ) and their member concepts.

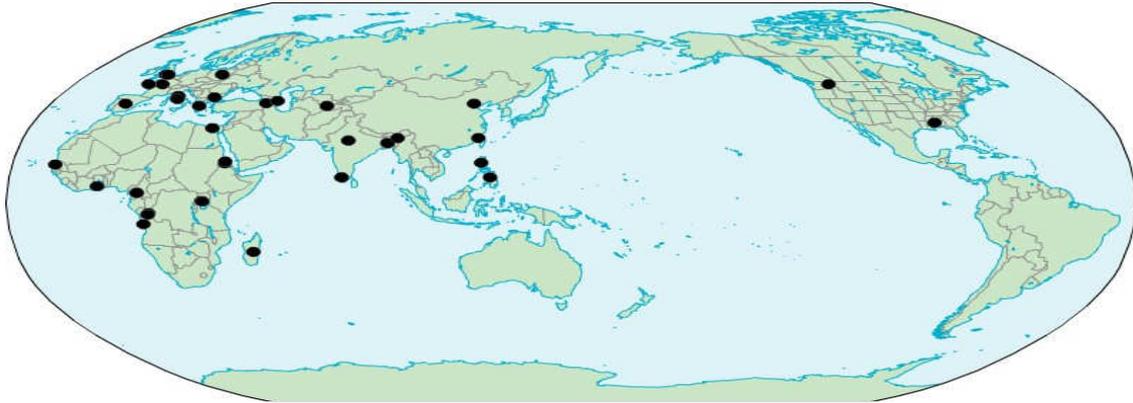
SECURITY	DEPOSIT, HOSTAGE, SECURITY, STAKE	49
PUT	ERECT, PUT, PUT AWAY, PUT ON	47
ARGUE	ARGUE, DISPUTE, OPPOSE	23
COMPETE	COMPETE, CONTEST, CONTESTANT, MATCH, RACE	20
COMMIT	PLEDGE, PROMISE, SWEAR, TAKE OATH, VOW	17
DO	DO	14
AGREE	AGREE, CONVENTION, RESOLUTION	13
GAMBLE	GAMBLE, LOT, THROW LOTS, THROW OF DICE	13
HIT	HIT, HIT EACH OTHER	12
GO	GO	9
TIE	TIE	9
TRAP	CATCH, TRAP, TRICK	8
CHALLENGE	CHALLENGE	7
CONTRACT	CONTRACT, ENGAGE, HIRE	7
CUT	CUT	7
HOLD	HOLD	7
PRIZE	PRICE, PRIZE, PUT FOR CHALLENGE, REWARD	7
CONDITION	CONDITION, TERMS	6
MONEY	COMMODITY, MONEY	6
PLAY	PLAY	6
GIVE	GIVE	5



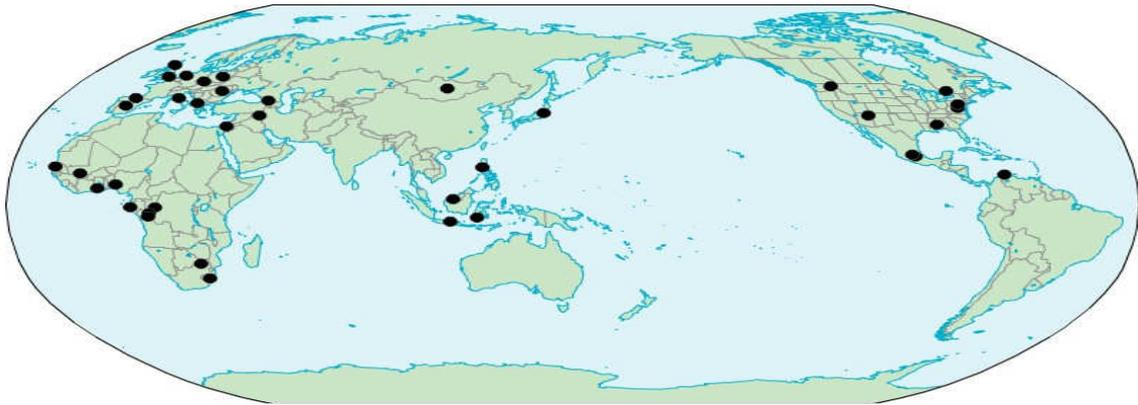
**Figure 3.** Distribution of sampled languages.



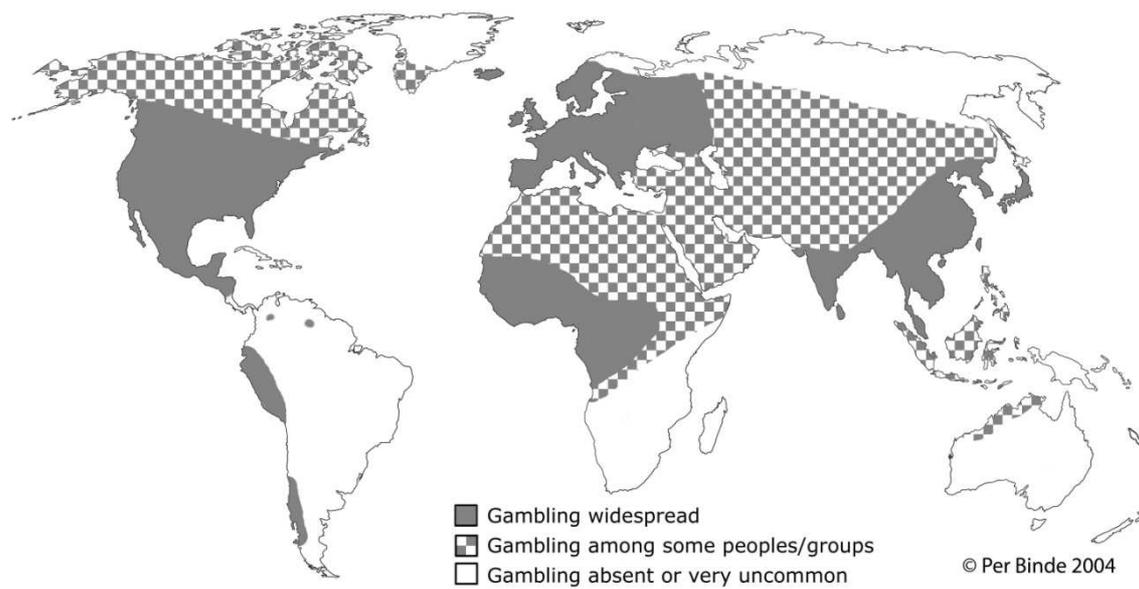
**Figure 4.** Distribution of CUT a source concept for BET. The concept is limited to West/Central Africa.



**Figure 5.** Distribution of SECURITY a source concept for BET.



**Figure 6.** Distribution of PUT a source concept for BET.



**Figure 7.** Binde's 'Approximate prevalence of indigenous gambling' (Binde 2005:3).  
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**Table 5.** Source concepts counted separately for (a) Eurasia/the Mediterranean and (b) the rest of the world.

	Eurasia/Mediterranean	Rest of the world
SECURITY	30	19
PUT	25	22
ARGUE	11	12
COMPETE	14	6
COMMIT	7	10
DO	7	7
AGREE	9	4
GAMBLE	7	6
HIT	4	8
GO	6	3
TIE	4	5
TRAP	3	5
CHALLENGE	5	2
CONTRACT	5	2
CUT	0	7
HOLD	7	0
PRIZE	4	3
CONDITION	6	0
MONEY	2	4
PLAY	4	2
GIVE	2	3

1. This predicate is not used in modern Romanian, but is listed in Damé's (1894) *Nouveau dictionnaire roumain-français* as a reflexive verb meaning 'parier, faire un pari, tenir une gageure'—i.e. 'bet'.