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On the Natural Environment as a Conceptual Source and Target in Tok Pisin

Abstract: The study of the relation between language and the natural environment in non-European languages is one of the foci of contemporary ecolinguistics (Penz & Fill, 2022, pp. 247–248). It remains in line with the anthropological proposition to investigate the semantic systems of non-Western languages, whose number is decreasing as a result of fast modernization and the spread of Western culture across the world (Keesing, 1985, p. 214; Mühlhäusler, 1995, p. 282; Mallett, 2003, p. 131). Subscribing to this perspective, the present paper discusses nature-related concepts in the lexicon of Tok Pisin, a creole of Papua New Guinea, lexified by English and the indigenous languages. It employs the methodological framework of cognitive and cultural linguistics (Dancygier & Sweetser, 2015; Langacker, 1994, p. 31; Palmer, 1996; Sharifian, 2017) to present the use of a broad range of natural terms as conceptual sources and targets of both metaphors and metonymies. It is argued that the Oceanic cognitive schema of integrity of humans and the natural world (Flassy, 2018, p. 73; Singh, 2022, p. 4), together with concepts related to the local fauna, flora, climate, and topography, produce an emic and culture-specific view of the natural environment of Melanesia, which gives Tok Pisin semantics a strongly relativist character.

Keywords: anthropomorphization, body part term, metaphor, metonymy, natural environment.

1. Introduction

Tok Pisin (henceforth TP) developed from Pidgin English used on plantations of Western Samoa (Mühlhäusler, 1976 as cited in Todd & Mühlhäusler, 1978, p. 16). Thanks to the later influence of Melanesian languages of New Britain and New Ireland, as well as English (Todd & Mühlhäusler, 1978, p. 16), it gradually transformed into a creole and a lingua franca of Papua New Guinea (henceforth PNG) – a country that speaks some 750 indigenous languages. As a contact language originating in the European colonisation of Oceania, TP is a mixture of

the indigenous linguistic substrate and the European lexical superstrate. Though the bulk of the vocabulary is of English origin, as much as 16-17% come from the indigenous languages of PNG (Kurosawa, 2009, p. 40). There are also words from German, Malay, or Portuguese. Because of its reduced vocabulary, TP is a grammatical language (Haiman, 1985, p. 166) – periphrastic constructions are more frequent than in non-contact languages. For example, the expressions *haus kuk* house cook ‘kitchen’ and *haus ka* house car ‘garage’ are the equivalents of the English monolexemes; even more complex constructions are *samting bilong pait* something of-FUNC fight ‘weapons’ or *samting long skul yu mas pinisim long haus* something PREP school you must finish PREP house / home ‘homework’. Rural Pidgin, which is a basilectal and standard TP, reflects a strong influence of Melanesian grammar and semantics.

The present analysis focuses on the part of TP lexicon related to the natural environment. The text is structured into six sections. Section 2 introduces the theoretical framework and the methodology of the analysis, as well as presents the data. Section 3 is a brief description of the natural environment and the inhabitants of PNG. Sections 4 and 5 are analytic: the first one discusses the use of natural elements as metaphorical and metonymic sources; the second one focuses on the natural environment as a metaphorical target. Section 6 summarizes the findings and concludes the analysis.

2. The theoretical framework, the data, and the methodology

Edward Sapir’s paper “Language and Environment” (2001 [1912]) first established the relation between ‘Nature’, understood as the topography of the country, its climate, the fauna, the flora, etc., and the vocabulary of a language (Fill & Mühlhäusler, 2001, p. 2). Sapir writes:

Properly speaking, of course, the physical environment is reflected in language only in so far as it has been influenced by social factors. The mere existence, for instance, of a certain type of animal in the physical environment of a people does not suffice to give rise to a linguistic symbol referring to it. It is necessary that the animal be known by the members of the group in common and that they have some interest, however slight, in it before the language of the community is called upon to make reference to this particular element of the physical environment. (2001 [1912], p. 14)

One of the areas of research within contemporary ecolinguistics is the study of how non-European languages represent the natural environment (Penz & Fill, 2022, p. 247). Riches (1995), for example, discusses the Inuits’ attitude to animals; Stibbe (2012) analyses the indigenous people’s views of animals, plants, and rivers; Fill (2021) deals with the relation between people and territory in the Aboriginal languages of Australia (Penz & Fill, 2022, p. 248). Such an approach is in line with the anthropological proposition to study non-Western semantic systems and

the metaphors present in them (Keesing, 1985, p. 214; Mühlhäusler, 1995, p. 282; Mallett, 2003, p. 131).

Contemporary cultural linguistics, which grows out of cognitive linguistics (Langacker, 1994, p. 31; 2014, p. 33 as cited in Sharifian, 2017, p. 34), offers a methodological framework to deal with the relation between language and the culture-motivated views of the natural environment. Both approaches explore “conceptualisations that have a cultural basis and are encoded in and communicated through features of human languages” (Sharifian, 2017, p. 34). Palmer (1996, p. 3 as cited in Sharifian, 2017, p. 35) writes: “language is the play of verbal symbols that are based in imagery” and imagery “is what we see in our mind’s eye, but it is also the taste of mango, the feel of walking in a tropical downpour, the music of *Mississippi Masala*.” Much of linguistic imagery is figurative rather than literal.

The figurative and image-based character of language rests on analogy-based metaphor and association-based metonymy as two dominant conceptual patterns (Dancygier & Sweetser, 2015; Dirven, 2002). The main function of metaphor is to provide understanding of a target concept in terms of a source concept by means of a systematic set of mappings between them. For example, the expressions “We’ve gotten off the track”, “We’re stuck”, and “We’re spinning our wheels” are instances of the metaphor LOVE IS A JOURNEY, which map various obstacles on a journey onto a crisis in a relationship (Kövecses, 2002, pp. 4–9). Some metaphors map only individual images onto each other rather than producing systematic entailments between conceptual domains. For example, André Breton’s line “My wife ... whose waist is an *hourglass*” (1931) superimposes “the image of an hourglass onto the image of a woman’s waist by virtue of their common shape” (Lakoff, 1993, p. 229).

The main function of metonymy, which involves a mapping between parts of a single domain, is referential (Kövecses, 2002, pp. 147–148). For example, in the expression *There’s a lot of Beethoven on the upper shelf*, the proper name *Beethoven* is a source that may provide access to the target of the records containing the interpretations of the composer’s works. However, the conceptual link between them is contingent or cancellable (Panther & Thornburg, 2007, pp. 240–241) – instead of using the expression *Beethoven*, one could use the literal statement *There’s a lot of records containing music by Beethoven on the upper shelf*. Both metaphor and metonymy operate in expressions of varied structural complexity – lexemes, idioms, and parts of composite expressions. For example, in the endocentric compound *steamboat* only the dependent *steam* functions as the source of the metonymy SOURCE OF ENERGY FOR MANNER OF OPERATION – a steamboat is a boat propelled by means of steam. For a contrast, the whole exocentric compound *redneck* functions as the source of the metonymy BODY PART FOR PERSON. Several possible forms of metaphor-metonymy interaction are collectively referred to as metaphonymy (Goossens, 1990). Thus, for example, the expression *beat one’s breast* ‘make an open show of sorrow that may be partly pretence’, which represents a part of the scenario of a religious confession, can be

extended to refer to a non-religious expression of sorrow as well. It is thus a case of metaphor from metonymy (Goossens, 1990, pp. 332–333). The expression *be / get up on one's hind legs* 'stand up in order to say or argue something, esp. in public', in turn, represents a case of metaphor within metonymy – the element *hind* is the source domain of the metaphor PEOPLE ARE ANIMALS operating within the whole expression (Goossens, 1990, p. 335) based on the metonymy SUBEVENT FOR WHOLE EVENT.

The TP expressions analysed below were gathered by means of the lexical method (Kövecses, Ambrus, Hegedűs, Imai & Sobczak, 2019). The procedure of selection consisted of four steps, some of which draw on Metaphor Identification Procedure (MIP) created by Praglejaz Group (2007). The first step involved finding items related to the analysed topic. They were drawn from two print dictionaries of the creole: Michalic's *The Jacaranda dictionary and grammar of Melanesian Pidgin* (1983) and the more up-to-date *Papua New Guinea Tok Pisin English dictionary* (2020) by Baing, Deutrom, Jackson & Volker, prepared in co-operation with *Wantok niuspepa*. Dutton & Thomas's (1985) course-book of the creole, Mühlhäusler's (1985d) chapter on variation in TP, and papers on TP idioms by Todd & Mühlhäusler (1978) and Franklin & Thomas (2006) also provided some examples. All expressions were then compared and supplemented with the relevant entries from four electronic dictionaries of the creole: *English-Tok Pisin-English dictionary* (2025); *FREELANG Tok Pisin-English-Tok Pisin online dictionary* (2025); *Tok Pisin English dictionary* (2025); *Tok Pisin translation, resources, and discussion* (2025). The electronic version of the *Oxford English dictionary* (2025) was consulted for their English counterparts. The second step meant checking the examples for the property of indirectness. It involved determining the basic meaning of each expression and then seeing if it can be related to the new sense by some form of similarity or contiguity based on Lakoff and Johnson's (1980) cross-domain mapping view of metaphor and Radden and Kövecses's (1999) within-domain mapping view of metonymy with the underlying part-for-whole relation. The third step consisted in the division of the expressions into various thematic groups following their functions as metaphorical sources and metonymic vehicles. The fourth step involved checking the target domains for which the metaphorical sources and metonymic vehicles were used.

3. The natural environment and people of Papua New Guinea

As in the rest of Melanesia, the natural environment of PNG is varied and rich in plant and animal life. Vegetation is tropical and consists of savannah, grassland, and forests; the fauna includes the original species, such as various marsupials, birds, and fish, as well as animals introduced by people, such as dogs and pigs (Sillitoe, 1998, pp. 3–5).

Some 85% of the population of the country are farmers (Kurosawa, 2009, p. 40). It should thus come as no surprise that – like all “people who depend directly on their own efforts to meet their subsistence requirements” (Sillitoe, 1998, p. 17) – they live close to nature. Dogs accompany people who hunt; pigs are common on farms. Such animals are often domesticated. Pigs even become pets on a leash – the owners talk to them, give them personal names, and treat them as members of the family (Sillitoe, 1998, pp. 32, 47–51). The close contact between man and nature is also reflected in the relation between the human and the natural life cycles. Pregnancy and birth, for example, are sometimes correlated with women’s productivity of planting crops and raising pigs (Queensland Health, 2024).

Bodily ornaments often consist of sea shells and “colourfully plumed headdresses” made from feathers of the “magnificent bird of paradise” (Sillitoe, 1998, p. 92). Dog’s teeth, teeth of crocodiles and porpoise, or pig’s tusks function as jewellery, currency, and objects of wealth and exchange (Sillitoe, 1998, p. 92). Bark-fibre string is used to manufacture capes and *bilums* or netted string bags (Sillitoe, 1998, pp. 118–122).

Animals and plants are also a part of mythology, which justifies the local practice, institutions, and conveys moral messages. For example, one of the myths common among the pig-raising and taro-growing Baktaman population of central PNG says that the world begins with a dog which pulls people and places from the holes under the trees; taro, their main crop, is fetched from the hole by a swallow (Sillitoe, 1998, pp. 229–230, 232–233).

Finally, the natural and the social worlds are often embedded within each other. For example, the Kamea people of PNG have a non-genealogical system of expressing family relatedness – the growth of social relationships is equivalent to the growth of trees (Bamford, 2009 as cited in Ellen, 1998, p. 144).

4. The natural environment as a conceptual source in Tok Pisin

The natural environment includes all living things, but its sense is often narrowed down to earth and its parts (Flassy, 2018, p. 70). Some of those elements function as sources of metaphors only in English; others are sources of metaphors and metonymies in both TP and English.

4.1. Literal in Tok Pisin vs. metaphorical in English

The Melanesians live by the integrity of humans and plants, thus taking a holistic view of the surrounding world (Flassy, 2018, p. 73). The view motivates a cognitive schema, common in the whole of Oceania, in which the self is a “part of nature” and human beings are “equals with nature, not dominant over it” (Singh, 2022, pp. 4–5).

Such form of culture-shaped cognition motivates the scope of figurativity in Oceanic languages. For example, Murphy (1966, p. 40 as cited in Mühlhäusler,

1985b, p. 616) argues that *gras* – from English *grass* – is rarely used to mean ‘grass’, but refers to ‘hair’, ‘fur’, or ‘feathers’. In a similar fashion, Hall explains that “English *grass* appears in Pidgin as /*gras*/, but refers, not only to the green plant, but to anything that grows outward from a surface in a blade-like shape” (1966, pp. 90ff as cited in Mühlhäusler, 1985b, p. 616). As a result, though such expressions as

- (1) *gras antap long ai* grass on.top prep eye ‘eyebrows’
- (2) *gras bilong het* grass of-part head ‘hair’
- (3) *gras bilong pes* grass of-part face ‘beard’
- (4) *i gat gras pm* have grass ‘be hairy’
- (5) *katim gras* cut grass ‘cut hair, shave’
- (6) *kunai gras* sword grass ‘bushy beard or hair’
- (7) *mausgras* mouth.grass ‘moustache, beard, catfish’
- (8) *waitpela gras* white grass ‘grey hair, grey-headed person, egret, heron’
- (9) *gras bilong pisin* grass of-poss bird ‘feathers’,

may seem to be metaphorical to a speaker of English, they are literal to a speaker of TP. Mühlhäusler explains: “In actual fact, the semantic space occupied by the literal meanings of *hair*, *fuzz*, *feathers*, *grass*, *mould*, etc. in English is occupied by just one literal meaning in Tok Pisin” (1985b, p. 616). That is because in Oceania a human being, as a “part of nature”, is “a category alongside tree and grass”¹ (Singh, 2022, p. 5).

Thus, whether a meaning is metaphorical depends on the cultural perception of the world and “can be determined only within a given language, not by comparing languages” (Mühlhäusler, 1985b, p. 616; 1985c, p. 73). In other words, “any use of metaphorical extension of a meaning should be in conformity with the role of metaphor in that language and not be influenced by conventions in another language. English metaphors frequently cannot be integrated into the semantic system of Tok Pisin” (Mühlhäusler, 1985b, p. 616).

4.2. Figurative in Tok Pisin and in English

The elements of the natural environment that are figurative to the speakers of TP and English include the fauna, the flora, the winds and the weather, the sun, and the water. English has many similar expressions (Seidl & McMordie, 1989), but the TP counterparts usually reflect the local motivation.

4.2.1. The fauna

The fauna-related elements function as sources of metaphor-based ANIMALIZATION of plants, outward appearance, physical condition, social origin, and money:

¹ In Fijian and Samoan, both Oceanic languages, hair is leaves to a tree (Singh, 2022, p. 5).

- (10) *tel bilong diwai* tail of-part tree ‘the thinner end of the tree trunk’
 (11) *blulang* blu.fly ‘blow fly = policeman’
 (12) *frok-bel* frog.belly ‘obese person’
 (13) *Kumul ya!* bird of paradise really ‘Beautiful woman!’
 (14) *longpela muruk* long cassowary ‘person with long legs’
 (15) *pato-lek* duck.leg ‘waddling person’²
 (16) *pukpuk* crocodile ‘person covered with tinea’
 (17) *bun kakaruk* bone chicken ‘very thin, malnourished person’
 (18) *Muruk i kilim em* cassowary pm hit him ‘He had an epileptic attack’
 (19) *sik dok* sick dog ‘weak person’
 (20) *strit dok* street dog ‘urbanite’
 (21) *kina* large mother of pearl shell ‘unit of PNG currency’
 (22) *toea* small pearl shell ‘unit of PNG currency’.

In example (10), the image of a thin animal tail motivates the metaphor-based extension of *tel*. TP employs a human or animal body part term (henceforth BPT) to represent one part of the tree trunk – *as bilong diwai* ass of-PART tree ‘the base of the tree’ (Radomyski, 2023, pp. 163, 165, 175) – and animal BPT to represent the part organically connected with it. Expressions (11)–(16) are all related to human outward appearance. Example (11) is based on the similarity of the colour of the insect to the blue uniforms of the police in PNG. Examples (12) and (15) are conceptually more complex – whereas the initial elements of the compounds are loci of metaphors, the BPTs access their human referents by means of the metonymy BODY PART FOR PERSON. The expressions are thus instances of metaphor operating within metonymy. Expression (13) is motivated by the beautiful bird of paradise – a symbol of the country. Examples (14) and (16), as well as (17) reflect some iconic relation between the animals and the people. Whereas (14) and (16) are based on metaphor, (17) is based on the metonymy BODY PART FOR PERSON interacting with the metaphor of ANIMALIZATION and also contains an implicit reference to “the stereotypical scrawny village chicken” (Franklin & Thomas, 2006, p. 5). Example (18) likens an epileptic attack to the effects of being hit by a cassowary. Metaphorical expressions (19) and (20), the second of which is descriptive of a person’s social origin, are both motivated by the common presence of dogs in people’s households and the streets of PNG towns. Finally, metaphor-based concepts (21)–(22) reflect the role of the sea and the shellfish in the life of PNG. They also reflect the value attached to such objects: the *kina* is “[...] used widely for trading and as a traditional store of wealth and adornment” (Bank of Papua New Guinea [B of PNG], 2025). The *toea*, in turn, “is [...] used for trading and bride price ceremonies in the Motuan villages, and is valued because it is found in the depths of the ocean and only at certain times of the year. [...] [It] is worked on and transformed into armbands, and thus becomes a means of payment and store of wealth”³ (B of PNG, 2025).

² The first element of the expression reflects the influence of Spanish on the lexicon of TP.

³ Sea shells are used in *kula*, which is a “complex system of exchange of shell tokens of social status, with its economic, political, and ritual overtones” (Firth, 1989, p. 15). It was described in detail by Malinowski (1922).

4.2.2. The flora

Throughout PNG *bus* bush ‘jungle, forest, wilds, woods, any area outside the village or gardening limits’, often contrasted with *ples* place ‘place, village, region, area, town’, refers to “extra-social space”⁴ (Fajans, 1998, p. 12). As a metonymic source, it is used to access the origin and properties of humans and animals. Thus, in such expressions as

- (23) *buskanaka* bush.man ‘wild man’
- (24) *busman* bush.man ‘outcast’
- (25) *manabus* man.of.bush ‘savage, ignorant bush-dweller’
- (26) *man bilong bus* man of-orig bush ‘person from the interior’
- (27) *paul bilong bus* fowl of-orig bush ‘wild fowl, bush hen’
- (28) *pik bilong bus* pig of-orig bush ‘wild pig’,

the element *bus* not only specifies the location but also implies the properties of being ignorant, savage, or wild. That is why it also serves as the source of the metonymy LOCATION FOR PROPERTY.

Grassy valleys are another part of the landscape of PNG that motivates some expressions related to the origin and outward appearance of people:

- (29) *kanaka bilong kunai* man of-orig sword grass ‘native of the grass country’
- (30) *wankunai* one.sword grass ‘person from the same grassy valley of the Highlands’
- (31) *kunai i paia* sword grass pm burned off ‘bald-headed person’.

In example (29), the element *kunai* is the source of the metonymy PLANT FOR AREA.⁵ In (30) the metaphor SIMILAR IS ONE in the initial element of the compound precedes the metonymic chain (Fass, 1997, p. 73) PLANT FOR AREA FOR PERSON operating in its second element. In expression (31), an aspect of the landscape serves to represent baldness – the word *kunai* does not literally mean ‘hair’ but accesses the concept by means of a more specific metaphor-based image.

Other elements of the flora also motivate some metaphorical expressions related to human outward appearance, social relations, and intellect:

- (32) *karamap saksak* cover.up sago ‘parcel of sago = pregnant woman’
- (33) *Longpela kokonas i pundaun pinis* long coconut pm fall.down perf ‘The chief of the village has died’⁶
- (34) *Wanpela diwai i stap klostu long haus bilong yu i pundaun long graun* one tree pm be close. to prep house of-poss you pm fall.down prep ground ‘Someone near or dear to you has died’
- (35) *het diwai* head wood ‘stupid, foolish person’.

⁴ Both concepts are used “to organize cosmology and social practice” of the people (Fajans, 1998, p. 12).

⁵ The English equivalent of *kunai* has a metaphorical element – the sword-like shape of the grass. The translation ‘man of-orig sword grass’ may thus be based on metaphor within metonymy.

⁶ Coconut palms play a major role in the agriculture of the country – some are even owned by individuals (Sillitoe, 1998, p. 23). As a result, the trees have the largest number of names in the semantic field of plants (Mühlhäusler, 1985a, p. 427).

In example (32), malleable *saksak* resembles “the jostling movement of a pregnant woman’s belly” (Franklin & Thomas, 2006, p. 6). Examples (33) and (34) both form a part of the stylistic register of *tok bokis* talk box ‘hidden talk’, which is used to deal with taboo concepts (Mühlhäusler, 1985d, p. 267). Expression (35) combines the metonymy BODY PART FOR PERSON located in the BPT with the metaphor IMPERVIOUS IS DRY operating in the following element. It is thus a case of metaphor within metonymy.

4.2.3. The winds and the weather

PNG’s proximity to the Equator means that the winds blowing in the area are the basis for the local wind calendar, the descriptions of the related weather conditions, and for nomenclature of geographical areas (Michalic, 1983, pp. 163, 190; Sillitoe, 1998, p. 5; Singh, 2022, p. 12):

- (36) *taim bilong rai* time of-attr south-east trade wind ‘the south-east season: May to October’
- (37) *taim bilong (bik) san* time of-attr (big) sun ‘drought, the dry season’
- (38) *taim bilong draiwara* time of-attr dry.water ‘the dry season’
- (39) *taim bilong taleo* time of-attr north-west monsoon ‘the north-west season: November to April’
- (40) *taim bilong ren* time of-attr ‘the wet season’
- (41) *taim bilong haiwara* time of-attr high.water ‘the rainy season, the flood time’
- (42) *Raikos* course of south-east trade wind ‘the coast from Madang to Finschafen, the Huon Peninsula’.

In wind-related expressions (36) and (39), the metonymy PART FOR WHOLE with the names of the winds as sources serves to access the dry and the rainy seasons of the year. As *rai* is connected with the absence of rainfall, the related expressions (37) and (38) describe the condition by means of the metonymies CAUSE FOR EFFECT and EFFECT FOR CAUSE using the postmodifier nouns as their sources. For a contrast, *taleo* causes rainfall – expression (40) thus employs the metonymy CAUSE FOR EFFECT to access the wet season; (41), in turn, focuses on the floods and uses the metonymy EFFECT FOR CAUSE to access the time of the year. In both cases, the postmodifier nouns function as metonymic sources. Expression (42), related to the local geographical nomenclature, is again based on the metonymy PART FOR WHOLE, which uses it as its source.

4.2.4. The sun

Before precise clock measures became known in PNG, the natives determined the passage of time by reference to the position of the sun. The practice is still reflected in various expressions related to various parts of day:

- (43) *sankamap* sun.come.up ‘morning, dawn’
- (44) *taim bilong san i kamap* time of-attr sun pm come.up ‘morning, dawn’

- (45) *san sun* ‘daytime’
 (46) *taim long san* time prep sun ‘daytime’
 (47) *san i stap antap tru* sun pm be on.top true ‘midday, the high noon’
 (48) *biksan* big.sun ‘midday, the high noon’
 (49) *sandaun* sun.down ‘evening’
 (50) *taim bilong san i godaun* time of-attr sun pm go.down ‘evening’.

All of them are periphrastic constructions based on the metonymy CAUSE FOR EFFECT – the position of the sun and the intensity of its operation determine the intensity of light used a reference point to distinguish the successive parts of day. Expression (48) is a case of metaphor within metonymy – the adjective *bik* is the source domain of the metaphor STRONG IS BIG.

4.2.5. The water

The Melanesian experience of waterbound life from early years on (Sillitoe, 1998, p. 57) provides motivation for some expressions related to diverse aspects of experience, such as physiological processes and marital relations:

- (51) *Mi go si / solwara* I go sea / salt.water ‘I go for a pee’
 (52) *Saman wantaim kanu i no orait* outrigger one.time canoe pm not alright ‘The outrigger and the canoe do not match = They are unhappily married’.

Based on deliberate metaphors, the expressions are further instances of *tok bokis* talk box ‘hidden talk’ (Mühlhäusler, 1985d, p. 267). Example (51) maps the sea water onto urine; (52) is a culture-specific elaboration of the cross-culturally common metaphor LIFE IS A JOURNEY.

5. The natural environment as a conceptual target

A further consequence of the Oceanic schema of the interdependence and equality of humans and nature is the natives’ tendency to picture the natural environment – the fauna, the flora, topographical landmarks, and even astral bodies – as human beings:

- (53) *ai bilong kokonas* eye of-part coconut ‘the sprout hole of the coconut shell’
 (54) *ai bilong taro* eye of-part taro ‘the taro bud’
 (55) *ai bilong wara* eye of-part water ‘the source of the river’⁷
 (56) *as bilong diwai* ass of-part tree ‘the base of the tree’
 (57) *as bilong mun* ass of-part moon ‘the beginning of the month’
 (58) *bel diwai* belly tree ‘the tree trunk’

⁷ The expression (55) and the complementary expression (70) *lek bilong wara* foot of-PART water ‘the estuary of the river’ are indigenous concepts and may have been replaced by the English equivalents by now (Todd & Mühlhäusler, 1978, pp. 18–19).

- (59) *bel bilong tri* belly of-part tree ‘the inside of the tree trunk’
 (60) *blut bilong diwai* blood of-part tree ‘the sap of the tree’
 (61) *blut bilong kapiak* blood of-part breadfruit tree ‘the sticky sap of the breadfruit tree’
 (62) *bun diwai* bone tree ‘the inner part of the tree trunk’
 (63) *han bilong diwai* hand of-part tree ‘the branch of the tree’⁸
 (64) *han bilong wara* hand of-part water ‘the tributary of the river’
 (65) *han bilong dok* hand of-poss dog ‘the dog’s paw’
 (66) *het bilong diwai* head of-part tree ‘the tree top, the crown of the tree’
 (67) *het bilong maunten* head of-part mountain ‘the summit / the top of the mountain’
 (68) *het bilong wara* head of-part water ‘the source of the river, the headwater’
 (69) *lek bilong wara* foot of-part water ‘the estuary of the river’
 (70) *lek bilong dok* leg of-poss dog ‘the hind limb of the dog’⁹
 (71) *maus bilong hul* mouth of-part hole ‘the mouth of the cave’
 (72) *maus bilong pisin* mouth of-poss bird ‘the bird’s beak’
 (73) *maus bilong wara* mouth of-part water ‘the mouth of the river’
 (74) *skin bilong diwai* skin of-part tree ‘the bark of the tree’
 (75) *skin kina* skin oyster ‘the oyster shell’
 (76) *skin bilong kokonas* skin of-part coconut ‘the coconut husk’
 (77) *skin bilong trausel* skin of-poss turtle ‘the turtle shell’
 (78) *Em i papa bilong dispela pig* he pm father of-func this pig ‘He is the owner of / takes care of / is responsible for this pig’
 (79) *Husat i mama bilong dispela pik?* who pm mother of-func this pig ‘Which woman does this pig belong to?’¹⁰
 (80) *pikinini bulmakau* child bull.and.cow ‘calf’
 (81) *pikinini dok* child dog ‘puppy’
 (82) *pikinini pis* child fish ‘minnow’
 (83) *pikinini bilong diwai* child of-orig tree ‘fruit, seed, the nut of the tree’
 (84) *pikinini bilong mango* child of-orig mango ‘the fruit of mango’
 (85) *pikinini bilong rais* child of-orig rice ‘the rice kernels’
 (86) *pikinini bilong yambo* child of-orig guava ‘the fruit of the guava tree’.

The anthropomorphization of animals, plants, topographical landmarks, and astral bodies, which involves the mapping of BPTs and family terms onto the target concepts, is based on the general metaphor NATURE IS A HUMAN BEING.¹¹ These concepts are figurative both for the speakers of English and TP (Mühlhäusler, 1985a, p. 426; Todd & Mühlhäusler, 1978, pp. 20–21, 24).

Similar conceptual patterns are also common in SAE languages. English, for example, has such concepts as *the eye of the storm*, *the foot of the mountain*, *the mouth of the river*, etc. However, in TP the scope of anthropomorphization is much

⁸ Damon (1998, p. 84) describes the northeast *kula* ring personification of the *kausilay* tree as a female. It is used as a material to build outrigger canoes.

⁹ The Oceanic languages frequently use *leg* to refer to both ‘limb’ and ‘foot’.

¹⁰ The use of the family-related term *papa* in example (78) is also motivated by the traditional social roles of family members. Michalic says, however, that “in the Highlands in particular, pigs are cared for only by the women” (1983, p. 128).

¹¹ Radomyski (2023, pp. 163, 165, 175) argues that *ass* could be regarded as a part of a human being or an animal.

more extensive than in its main lexifier, where the extensions of such BPTs as *ass*, *belly*, *blood*, *bone*, *hand*, *skin*, and *offspring* are not used in similar contexts. The creole conceptualizations thus reflect a culture-specific way of perceiving the natural environment, which is largely motivated by the above-mentioned cognitive schema of the interdependence of the human and the natural worlds.

6. Summary and conclusions

The range of natural elements used in TP as conceptual sources and targets well illustrates the prominent role that the natural environment plays in the lives of Melanesians. These elements are used to structure the culture-specific concepts of animals, plants, outward appearance, physical condition, social origin, social relations, money, intellect, time, calendar, weather, topographical landmarks, geographical nomenclature, and physiology. Whereas animals, plants, and human BPTs are the most common metaphorical sources, the common targets include people, animals, plants, and topographical landmarks. Frequent metonymic sources include plants and weather, which function as parts, causes, and effects providing access to the seasons of the year or time's passage.

The absence of metaphors where English and other SAE semantic systems have them and broader scope of anthropomorphization of the natural world reflect the relativist character of TP semantics, strongly motivated by culturally-shaped cognition. Such semantics illustrates the intercultural context of the process of linguistic accommodation typical of contact languages (Mühlhäusler, 1992 as cited in Sebba, 1997, p. 288) and reflects the character of TP as a restructured language (Sebba, 1997, pp. 25–26). The creole's concepts are complex and describable in unique emic – “insider”, “folk”, or “experience-near” (Levisen, 2024, p. 20) – terms.¹² They thus deny the claims that contact languages are more primitive and less expressive than non-contact languages (e.g. Seuren, 1998, pp. 292–293 as cited in DeGraff, 2005, p. 543).

Abbreviations used in the text

FULL CAPS are used in the names of metaphors and metonymies, as well as in the abbreviations in the main body of the text and the Notes.

small caps are used in the abbreviations of the names of grammatical categories in the glosses of the linguistic examples.

¹² Levisen (2004, pp. 54-67), focusing on the concepts of *graon* ‘land, territory, home’, *aelan* ‘(home) island’, and *kantri* ‘country’, argues for the presence of similar concepts in another Pacific creole – Bislama used in Vanuatu.

BPT =	body part term (except for the Abstract and the References)
func =	functional
fut =	future
orig =	origin
part =	partitive
perf =	perfective
pl =	plural
pm =	predicate marker
PNG =	Papua New Guinea (except for the Abstract, the titles of the parts of the paper, and the References)
poss =	possessive
prep =	preposition
SAE =	Standard Average European
TP =	Tok Pisin (except for the Abstract, the titles of the paper and its parts, the quotations, and the References)

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