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Conceptual representations and figurative language in language shift

Metaphors and gestures for emotions in Kriol (Barunga, northern Australia)

Abstract: This article explores the correlations between linguistic figurative features and their corresponding conceptual representations, by considering their respective continuities and discontinuities in language shift. I compare the figurative encoding of emotions in Kriol, a creole of northern Australia, with those of Dalabon, one of the languages replaced by this creole, with a particular focus on evidence from metaphorical gestures. The conclusions are three-fold. Firstly, the prominent figurative association between the body and the emotions observed in Dalabon is, overall, not matched in Kriol. Secondly, although this association is not prominent in Kriol, it is not entirely absent. It surfaces where speakers are less constrained by linguistic conventions: in non-conventionalized tropes, and gestures in particular. Indeed, some of the verbal emotion metaphors that have disappeared with language shift are preserved as gestural metaphors. Thus, Kriol speakers endorse the conceptual association between emotions and the body, in spite of the lower linguistic incidence of this association. The third conclusion is that therefore, in language shift, conceptual figurative representations and linguistic figurative representations are independent of each other. The former can persist when the latter largely disappear. Conversely, the fact that speakers endorse a certain type of conceptual representation does not entail that they will use corresponding linguistic forms in the new language. The transfer of linguistic figurative representations seems to depend, instead, upon purely linguistic parameters.

Keywords: language shift, emotion metaphors, gestures, creole, linguistic relativity

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1 Introduction

In Lakoff's classic definition (Lakoff and Johnson 1980; Lakoff 1987), metaphors and other figurative features shape – and therefore, reflect – our concepts. However, the strict association between figurative features and concepts has often been challenged. Some psychologists contend that metaphors do not define concepts (Murphy 1996; Murphy 1997); cognitive linguists have shown that the representations associated with a given linguistic metaphor can depart from what they were historically when the metaphor emerged (see Geeraerts and Grondelaers 1995 on anger); other linguists have argued that when a linguistic metaphor is conventionalized, it becomes cognitively opaque for speakers (Enfield 2015: Ch. 3). Thus, the correlation between linguistic figurative features and conceptual representations is not a one-to-one correspondence.

Throughout this article, the expression *conceptual representations* refers to non-linguistic knowledge about the properties of things in the world – or in other words, following Geeraerts and Cuykens's (2007: 5) definition of "cognitive", as "the intermediate informational structures in our encounter with the world", occurring "in the mind".[1] Linguistic figurative features include metaphors and metonymies, which I collectively call *tropes*.[2] I use the terms trope, *metaphor* and *metonymy* to talk about linguistic phenomena exclusively, as opposed to underlying conceptual representations. Linguistic tropes sometimes precisely match speakers' conceptual representations, and sometimes do not. The questions I tackle in this article concern the strength of the link between the two. When a linguistic trope does correspond to a conceptual representation, how tightly linked together are these two elements? I shed light upon this question via a study of figurative features in language shift: if a linguistic figurative feature disappears, can the corresponding conceptual representation survive independently? This study also questions the role of linguistic representation in conditioning conceptual representations, and as such addresses Whorfian interrogations (Whorf 1956) and their more recent developments (Lucy 1992; Levinson and Gumperz 1996; Malt et al. 2011; inter alia).

The article addresses the above questions by comparing the figurative encoding of emotions in Kriol (Barunga region), an English-lexified creole spoken in northern Australia, and in Dalabon, one of the languages that has

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1 I use the term *conceptual* rather than *cognitive* because I refer to representations rather than mechanisms of the brain.

2 Instead of *trope*, many authors use the term *metaphor* as a hyperonym covering both metaphors and metonymies. However, given that metaphor also contrasts with metonymy, I prefer to use trope as a hyperonym to avoid confusion.

been replaced by this creole. So far, most studies on language shift have discussed the continuity or discontinuity of lexical or grammatical features (Siegel 2008; Lefebvre 1986; Munro 2004; Dickson 2015; Ponsonnet To appear-a), or of discourse practices (Woodbury 1998) and communicative functions (Hoffman 2012; Nicholls 2013; Dickson 2015; Ponsonnet To appear-b). A few have explored differences in *thinking for speaking*, defined by Slobin (1996: 89) as the way our cognitive activity is "guided by the set of grammaticized distinctions in the language to attend to [certain] features of events while speaking" (Evans 2010; Meakins 2011). Overall, very few studies have focused on figurative language in creoles, but some works report that figurative features from the substrate languages can persist. For instance, Holm (1988: 1986) and Lefebvre (2004: 183–185, 205) list some idiomatic tropes of Atlantic Creoles that presumably result from substrate influence, and Ameka (2015) offers comparable reports for Ghanaian English. Neither of these authors have studied the conceptual representations corresponding to these figurative features. In this article, I analyze the consequences of language shift with respect to linguistic figurative features as well as conceptual representations. The fact that speakers embrace conceptual representations corresponding to linguistic figurative features can be measured by scrutinizing less conventional usages of these linguistic features (i.e., tropes created by speakers at the time of speech), occurrences of these tropes in alternative modalities such as gestures, as well as non-linguistic semiotic practices (Enfield 2015: Ch. 3).

The conclusions of this study are three-fold. Firstly, the prominent figurative association between the body and emotions observed in Dalabon (Ponsonnet 2014a) is overall not matched in Kriol. This raises questions about figurative features in creoles in general: what influence do they follow? Is Kriol an exception in reproducing few figurative features from Australian languages? Or, would systematic studies of figurative language in creoles reveal that this aspect of language is not prone to being adopted into creoles?

Secondly, although the figurative association between the body and emotions is not as prominent linguistically in Kriol as in Dalabon, it is not entirely absent. It surfaces in particular where speakers are less constrained by linguistic conventions: in non-conventionalized tropes and in gestures. Gestures offer particularly interesting evidence, because some Kriol metaphorical gestures can be traced back directly to Dalabon verbal metaphors, confirming Cienki and Müller's (2008a) observation that figurative representations can persist in gestures when they are absent in speech. These linguistic and gestural instantiations of the body/emotion association are less salient in Kriol than in Dalabon, but they do exist, and show that Kriol speakers endorse this association conceptually.

The third conclusion of this comparison between Kriol and Dalabon is that conceptual representations can be preserved in language shift even when the linguistic features that supported them are lost (as already suggested by Meakins 2011). Thus, in the context of language shift, *conceptual* figurative representations and *linguistic* figurative representations are independent of each other. The former can persist when the latter largely disappear. Reciprocally, the fact that speakers endorse a certain type of conceptual representations does not warrant that they will use corresponding linguistic forms in the new language. The persistence of *linguistic* figurative representations could depend, instead, upon purely linguistic parameters, such as the dynamics of contact or the typological profile of a given language.

1.1 Languages and data

Kriol is an English-based creole spoken by up to 30,000 Indigenous people (Lee and Obata 2010) across a vast portion of central northern Australia (Figure 1). In this article I consider the variety spoken in and around the community of Barunga, i.e., in remote Aboriginal communities where Dalabon speakers and their descendants reside, to the east of the town of Katherine. Kriol was adopted in this region just after the Second World War (Sandefur 1986: 21) and is now spoken by a few thousand speakers in this area. These remote Aboriginal communities are equipped with basic facilities such as schools, simple health services, small supermarkets etc., many of them staffed with mainstream Australians who usually interact with the local population in English. However, apart from these contexts, as well as television, Kriol is the

Figure 1: The geographic distribution of Kriol.

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main daily language of all inhabitants in these communities. Exposure to tradi-tional Australian Aboriginal languages (see below) is limited. In spite of early discrimination against the creole language (Rhydwen 1995), Kriol speakers are now proud of their language and regard it as an identity marker (Ponsonnet 2010). See Sandefur (1979) and Schultze-Berndt et al. (2013) for grammatical descriptions of Kriol.

Prior to colonization, at least four languages were spoken in the Barunga region: Bininj Gun-wok (dialect chain, Evans 2003); Dalabon (Evans and Merlan 2003; Evans et al. 2001; Evans et al. 2004); Jawoyn (Merlan and Jacq 2005a); and Rembarrnga (McKay 1975; Saulwick 2003a; Saulwick 2003b). All of these are head-marking, highly polysynthetic languages of the (non-Pama-Nyungan) Gunwinyguan family. Nowadays, in these communities these languages have been replaced by Kriol, and the daily interactions in other Australian Aboriginal languages are relatively scarce.

In this study, I use one of these four languages, Dalabon, as a point of comparison for the figurative features that represent emotions in Kriol. This is feasible because, unlike for the other three languages, there exist extensive descriptions of the linguistic encoding of emotions in Dalabon (Ponsonnet 2014a). With both Dalabon and Kriol, the analysis is based on extensive first-hand audio and video corpora. Data collection relied on a range of stimuli designed to target the emotion domain and to elicit quasi-spontaneous emo-tional speech (Ponsonnet 2014b). The Dalabon data was collected between 2007 and 2012, mostly with four elderly female Dalabon speakers. The analyses have largely been published elsewhere (Ponsonnet 2014a) and will only be summar-ized here (Section 2). The Kriol corpus comprises ~20 hours collected in the communities of Barunga, Beswick/Wugularr, Bulman and Weemol in 2014 and 2015, with about twenty female speakers between 13 and 80 years old. About half of them have significant mastery of either Dalabon and/or another Gunwinyguan Aboriginal language, and all of them are fluent in English.

1.2 The dynamics of contacts

There are limitations as to what we can learn from a comparison between Kriol and a single Australian Aboriginal language. In particular, the comparison will not demonstrate the influence of Dalabon upon Kriol. The factors that influence the formation of creoles are complex and have been the subject of intense debate. Some authors have argued that the structure of creoles is mostly determined by universal tendencies (Bickerton 1977; Bickerton 1984); others claim that the domi-nant language or superstrate – here, English – plays a more important role

(Mufwene 2001; DeGraff 2003; among others); and yet others have shown that substrate languages, i.e., the ancestral languages of creole speakers, also exert significant influence (Lefebvre 2009; Siegel 2008; among others).

The Australian language Kriol resulted from the creolization of a pidgin commonly referred to as the Northern Territory Pidgin, which came to be used in the Northern Territory in the second half of the 19th century (Koch 2000; Troy 1994). As shown in Figure 2, the pidgin(s) originated in the south of the continent (where colonization started) and then progressed northwards along at least two paths. This slow progression resulted in influence from distant languages from the south of the continent (Simpson 2000; Mühlhäusler 2008; Meakins 2014), which presumably combined, at a later stage, with more local influences by Australian languages spoken in each particular Kriol regional variety (Munro 2004).
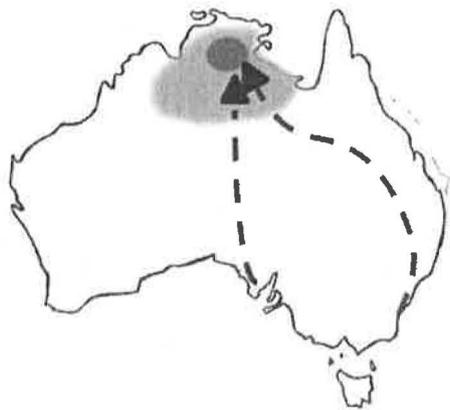

Figure 2: The routes of expansion of the original pidgin(s).

Given this complexity, it is not my purpose here to demonstrate the specific influence of Dalabon on Kriol. Instead, I seek to determine whether figurative representations maintain an Australian Aboriginal *profile*, i.e., follow Australian tendencies, and how this relates to the conceptual representation of emotions. In doing so, I use Dalabon as a benchmark for measuring *Australian influence*. Dalabon clearly diverges both from English and from universal tendencies with respect to the figurative representation of emotions (Ponsonnet 2014a); but it resembles other Australian languages. Thus, where Kriol resembles Dalabon but differs from English, it is likely to reflect Australian influence (except in cases where a feature is typologically common enough that it may reflect universal

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1.3 Similarities and differences between Dalabon and Kriol

Nowadays, Dalabon speakers form a subset of Kriol speakers: the few remaining Dalabon speakers (active or passive) all speak Kriol on a daily basis. Younger Kriol speakers are the descendants of Dalabon speakers, or of speakers of other local languages. While the lifestyle of Australian Aboriginal communities has drastically evolved in colonial times, my own ethnographic observations in the Barunga region suggest that with respect to emotions, the most crucial moral values have been maintained.[3] For instance, compassion and generosity remain dominant values (Myers 1979: 355–358, 1986: 113–117; Ponsonnet 2014a: 196–1999); and a number of folk theories about emotions are still embraced by the new generation. Linguistically speaking, too, there are important similarities between Kriol and Dalabon in the domain of emotions (and in other semantic domains, see Ponsonnet 2012; and [Dickson 2015] for other varieties of Kriol). These include similarities in expressive features such as interjections, evaluative morphology (Ponsonnet To appear-a), or lexical semantics (Ponsonnet To appear-b). By contrast, with respect to figurative representations of emotions, there is far less resemblance between Kriol and Dalabon. In comparison with the other resemblances mentioned above, this difference calls for an explanation, and the best candidates are purely linguistic phenomena such as the mechanism of influence in language shift, or the respective morphological profiles of the two languages at play.

After presenting how emotions are linguistically associated with the body in Dalabon in Section 2, the rest of the article will discuss the (rarer) occurrences of this association in Kriol. Section 3 presents the few lexicalized expressions that describe emotions as states of the belly, a trope borrowed from Australian Aboriginal languages, and Section 4 presents non-conventionalized tropes involving the belly and the heart. Section 5 discusses gestural tropes of Kriol that can be traced back to Dalabon body-based tropes. Here gestures provide the clearest indication that Kriol speakers do endorse conceptual representations corresponding to Dalabon emotion tropes, in spite of these representations not being instantiated in more conventionalized aspects of the Kriol language.

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3 Other authors make comparable observations for other regions of Australia (Moisseeff 1999; Musharbash 2008; Mansfield 2013; inter alia).

2 The body in Dalabon descriptions of emotions

Emotions are a rich lexical domain in Dalabon, with more than 160 lexemes documented so far. These are mostly verbs and predicate adjectives – there are only two full-fledged nouns (Ponsonnet 2014a; Ponsonnet 2016). A large proportion of these verbs and adjectives are compound predicates that involve a body-part, and often yield body-based figurative representations of emotions. Crosslinguistically, it is very common – in fact perhaps universal (see Wierzbicka 1999: 276; Ogarkova 2013: 50) – for emotions to be described by means of expressions involving body-parts (Sharifian et al. 2008). Dalabon follows this trend, featuring a particularly high number of emotion-denoting compound predicates of the form [body-part noun+predicate]. For instance, we see in (1) that the compound *kangu-yowyow(mu)*, literally 'belly'+'flow:REDUP', has an emotional meaning 'feel good, be nice'.

(Dal) 20120706b_005_MT 095 [ContEl]
(1) *Delegram   buka-h-marnu-burlh-miyan,*
     message   3sg > 3sg.h-R-BEN-come.out-FUT
     mulah-no-kun   *ka-h-lng-kangu-yowyow-miyan.*
     mother's.sister-3sgPOSS-GEN   3sg-R-SEQ-belly-flow:REDUP-FUT
                                                    feel.good
     'She'll get a message, and she will be pleased [belly-flowing] about her mother's sister.'

Such compounds result from noun incorporation constructions that have become lexicalized. Dalabon is polysynthetic and, as such, makes extensive use of noun incorporation. Body-part nouns belong to the most incorporable nominal subclass (Ponsonnet 2015), and therefore verb complexes and lexicalized compounds of the form [body-part noun+predicate] are overwhelmingly frequent. A large number of compounds of this type relate semantically to emotions, like *kangu-yowyow(mu)* 'belly'+'flow:REDUP', 'feel good, be nice'.

Many of these emotional compounds are figurative, i.e., they encapsulate tropes – metonymies or metaphors (Lakoff and Johnson 1980; Lakoff 1987; Kövecses 2002). For instance, *kangu-yowyow(mu)* 'belly'+'flow:REDUP', 'feel good, be nice' (example (1) above) instantiates the metaphor FEELING GOOD EMOTIONALLY IS LIKE HAVING A FLOWING BELLY. This particular metaphor is a specific instantiation of the more general metaphor FEELING EMOTIONALLY BAD IS LIKE HAVING A HARD/RESISANT BELLY – where flowing is the opposite of hard (see Ponsonnet [2014a: 245–248]). I have documented about sixty body-based

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figurative emotional compounds of this type: more than forty feature *kangu* 'belly', and another fifteen or so feature *ngerh* or *ngurlk*, related to the heart. Both sets are organized into conceptually coherent networks of metonymies and metaphors analyzed in detail in Ponsonnet (2014a: Ch. 8). Here, I present a summary that will allow for comparisons with Kriol.

Belly-based compounds typically describe moods and emotions resulting from interpersonal interactions. Many of them metonymically describe the belly as the seat of emotions, i.e., as the part of the person that experiences emotions (2).

(Dal) 20120705b_001_MT 054 [Stim]
(2) *Kardu bah ka-h-ru-n,   ka-h-kangu-ru-n,   buyirrhwalung.*
     Maybe but 3sg-R-cry-PRS 3sg-R-belly-cry-PRS inside
                              be.sad
     'It looks like he's crying, he's feeling bad [crying from the belly], inside.'

In addition to this core metonymy, Dalabon compounds instantiate mainly three metaphors. The one that is illustrated by the largest number of compounds is the resistance metaphor: FEELING EMOTIONALLY BAD IS LIKE HAVING A HARD/ RESISTANT BELLY. A hard or 'stuck' belly corresponds to negative emotions (*kangu-kurduh(mu)* 'belly'+'blocked', 'feel anxious' in [3]), and a soft belly to positive emotions. Indeed, negative emotions often trigger abdominal tensions; conversely, a tensed belly – as a result of constipation for instance, or hunger – can induce a lower emotional state.

(Dal) 30036/2008/39'00" [ConvEl]
(3) *Nga-h-lng-kangu-mon-minj ka-h-marnu-dudj-minj wujbidul-walung.*
     1sg-R-SEQ-belly-good-PI   2sg-R-BEN-return-PP   hospital-ABL
     Bah malung wujbidul ka-ye-ni-nj,   nunh
     But before hospital 3sg-SUB-sit/be-PP DEM
     nga-h-marnu-kangu-kurduh-minj, nga-h-dja-marnu-kangu-ru-ninj munguyh.
     1sg-R-BEN-belly-blocked-PI   1sg-R-SEQ-BEN-belly-cry-PI   always
     'I got to feel better [good from the belly] when she came back to me from hospital. But before, when she was in hospital, then I was anxious, I was feeling bad [belly-blocked] and worried [I cried from the belly] all the time.'

Another metaphor associates the integrity or the physical condition of the belly (whether it is broken, damaged etc.) with positive emotions: a belly in a good state represents positive emotions (*kangu-mon* 'belly'+'good, fine', 'feel good, be good', FEELING GOOD IS LIKE HAVING A HEALTHY BELLY in (3)), and the opposite.

Finally, a smaller number of compounds encapsulate a metaphor that matches accessibility of the belly with positive/negative emotions: FEELING GOOD IS LIKE HAVING A REACHABLE/ACCESSIBLE BELLY. For instance, 'seeing someone's belly' means getting on with this person (*kangu-nan* 'belly'+'see', 'appreciate someone').

Emotional compounds relating to the heart are less numerous and far less frequent in Dalabon than compounds with the belly. They mostly instantiate a metaphor of height and verticality, AFFECTION IS UP: FEELING AFFECTION IS LIKE HAVING A HIGH HEART, as in *ngurlk-di* 'heart'+'stand/be', literally 'stand up one's heart', lexically 'have strong affection (for someone)'.

Compared to some other languages in the world such as English (or French for instance), Dalabon has a very large number of body-based metonymies and metaphors for emotions – sixty Dalabon compounds vs. a handful in English (see Kövecses 2000: 169–170, for instance). Furthermore, Dalabon belly-based emotional compounds are not only a large cohort: several of them are also common in ordinary speech. As a result, they are both numerous and frequent. The associated tropes are commonly used linguistic tools that pervade ordinary Dalabon speech.

The data currently available on emotion tropes for other Australian Aboriginal languages suggests that this characteristic is broadly shared across the continent. The other Gunwinyguan languages formerly spoken in the Kriol region (Bininj Gun-wok, Jawoyn and Rembarrnga, see Section 1.1) also have a large number of emotional compounds featuring body-parts (see Garde 2011; for Bininj Gun-wok, Merlan and Jacq [2005a; 2005b] for Jawoyn, and Saulwick 2003a; for Rembarrnga, complemented by my own data). In Rembarrnga, the heart and the belly seem to have equal status as the seat of emotions, and in Bininj Gun-wok and Jawoyn, the heart appears to be dominant. As for more distant languages, Turpin (2002) reports figurative roles for the belly and the throat in Kaytetye (Pama-Nyungan, Arandic, Central Australia); and Gaby (2008) reports figurative roles for the belly and the heart in Kuuk Thaayorre (Pama-Nyungan, Paman, Cape York Peninsula). There are indications of the role of the belly in Murrinh Patha (Walsh 1996) and Yankunytjatjara (Goddard 1994), of the chest/heart in Enindhilyakwa (Waddy n d), and many more. Thus, Dalabon is representative of Australian Aboriginal languages – especially by contrast with English – with respect to the figurative roles of body-parts, and of the belly in particular, in descriptions of emotions.

Most Dalabon body-based tropes for emotions are highly conventional, since they are embedded in lexicalized compounds. However, there is also evidence that the associated conceptual representations are cognitively active for Dalabon speakers. As pointed out by Kövecses (2002: 30), a higher degree of

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conventionalization usually corresponds to lesser cognitive relevance, where speakers "would in fact not even notice that they use metaphor". By contrast, tropes that are freely created by speakers at the time of speech (for stylistic purposes for example) are necessarily grounded in active conceptual representations (see, for instance, Goddard 1996; Enfield 2015: Ch. 3). In this article, I call the tropes encapsulated in lexicalized expressions *lexicalized tropes*, and the tropes that are online creations of speakers will be labeled *non-conventionalized tropes*. In Dalabon, both types are "conceptually (or cognitively) active" to some degree. Full-fledged active, non-conventionalized tropes are rare in Dalabon,[4] but on the other hand, there is good evidence that the representations encapsulated in lexicalized body-based figurative compounds are conceptually active. For instance, speakers often translate Dalabon compounds literally into Kriol although there exists no corresponding conventionalized Kriol expression; when talking about emotions, gestures can involve the belly (see Section 5). Further, there even existed a Dalabon ritual designed to control the emotions of infants that relied almost entirely on the symbolism of resistance/malleability of the belly (the most salient belly-based metaphor – see Personnet 2014: 264). Thus, in Dalabon, body-based metonymies and metaphors for emotions are prominent both in terms of linguistic frequency and in terms of conceptual and cultural relevance.

In addition to these lexicalized tropes, there are two other ways in which the body is prominent in Dalabon descriptions of emotions. One of them is the nature of Dalabon generic tropes for emotions: Dalabon is cross-linguistically remarkable in that it mostly represents emotions as states of the person and hardly ever as entities independent of the person. That is, it is not possible to describe an emotion as an enemy for instance, as in English 'to fight one's fears'; nor even as an inanimate thing external to the person, as in English 'to find love'. This particularity of Dalabon emotion tropes is analyzed elsewhere (Ponsonnet 2014a: 295–297), and will be touched upon in Section 4.2. In this article, I focus on body-based figurative representations, i.e., figurative compounds of the same type as *kangu-yowyow(mu)* 'belly'+'flow:REDUP', 'feel good, be nice'.

How does Kriol compare with Dalabon with respect to the role of the body in figurative descriptions of emotions? As in Dalabon, emotions are a rich lexical domain in Kriol, with more than 100 emotional lexemes documented so far. As demonstrated by Ponsonnet To appear-a, many lexical distinctions are congruent with Dalabon. By contrast, the prominent figurative role of the body with respect to emotions is not matched in Kriol. The features identified above –

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4 As in some other Aboriginal languages such as Pitjantjatjara/Yankunytjatjara (Pama-Nyungan, Central Australian Desert [Goddard 2004: 1217]).

prominence of body-based linguistic tropes and the absence of metaphors that represent emotions as entities independent of the person – are not significantly matched in Kriol. Nevertheless, body-based figurative representations of emotions do surface in some places, and these occurrences will be discussed in the following sections, starting with lexicalized emotion-denoting expressions involving body-parts.

3 Lexicalized tropes involving a body-part

By contrast with Dalabon, Kriol does not have many lexicalized expressions associating the body and emotions.[5] Only four[6] emotion-denoting figurative expressions involving body-part nouns, presented in (4), are attested in my corpus – a very low figure compared to the sixty or so figurative compounds attested in Dalabon.[7] The origins, meanings and figurative status of the Kriol expressions are discussed in the following sections.

(4)   Kriol emotional calques
       frequent
       gud binji (adj.)   'good'+'belly'   'feel emotionally good'
       nogud binji (adj.)   'bad'+'belly'   'feel emotionally bad'
       rare
       wan gats/binji (adj.) 'one guts/belly'   'have a strong
                                                     and determined temperament'
       atkrek (v.i.)   'heart'+'crack'   'be very surprised, be shocked'

3.1 Significance of the belly/emotion association

Gud binji 'good'+'belly', 'feel emotionally good', and its antonym *nogud binji* are the only two body-based figurative expressions that occur with some frequency in Kriol. They figuratively describe the belly as the seat of emotions.

(BKriol) 20140328c_002_AA_IA 132 (AA) [Stim]
(5)   *Maibi   dat   boi   bin   send-im   mai   flawa,*
       maybe   DET   boy   PST   send-TR   1sgPOSS   flower

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5 The literal translations from Dalabon mentioned in Section 2 are not at all idiomatic.
6 There are a couple more non-figurative body-based expressions that have not been included here (see Ponsonnet To appear-a).
7 The smaller size of my Kriol corpus cannot by itself account for this difference.

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en   ai
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nogud binji are
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(BKriol) 23090
(6)   *Dat   min*
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8 *Binji* can be re;
may be *binyji*, bu
9 Across generat
'feel good' or jus!
'bad'.

> *en   ai   bin,   laik   gud   binji.*
> and 1sg PST CONJ good belly
>   feel.good
> 'Like the boy has sent me flowers, and I was like, pleased.'

While *gud* and *nogud* have English etyma (< 'good' and 'no good'), *binji*[8] reflects an Australian root: *bindhi* 'stomach' is reported in the Sydney language (Troy 1994: Appendix 21), and means 'belly' in several Kriol varieties today. *Gud/ nogud binji* are lexicalized well-formed Kriol constructions. Indeed, the language authorizes clauses where the predicate is a body-part noun modified by an adjective, i.e., [S+adj+body-part], as in (6). Such constructions, however, are rare outside of lexicalized constructions.

(BKriol) 230909_75OK 0784 (QB) [El]
(6)   *Dat min   yu   nogud ais   hei...*
        DET mean 2sg   bad   eyes CONJ
        'It means 'your eyes are no good' hey.'

Since *gud binji* and *nogud binji* are lexicalized, the BELLY AS A SEAT OF EMOTIONS metonymy is linguistically conventionalized. There is also good evidence, though, that it is conceptually relevant to speakers. Firstly, the expressions are not entirely frozen: one speaker suggested *rabishwan binji* 'worthless'+'belly'. This shows that the adjective can vary as long as the trope is maintained. This in turns indicates that speakers perceive the literal sense of the expression, and that the BELLY AS A SEAT OF EMOTIONS metonymy is conceptually relevant to them (as will be confirmed in Sections 4 and 5).

Furthermore, *gud binji* and *nogud binji* are metalinguistically salient. These expressions are not very frequent in actual speech – in fact, they are relatively rare in the speech of younger speakers.[9] Nevertheless, speakers of all ages treated *gud binji* and *nogud binji* as linguistic tokens representative of Kriol. There were claims that *gud binji* and *nogud binji* are very common emotion terms (7), and in a metalinguistic conversation about emotion words in Kriol, *gud binji* and *nogud binji* were the very first words cited by the consultant (8). In elicitation sessions, some consultants suggested that *nogud binji* should replace terms

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8 *Binji* can be realized as [binɟɟi] or [binɟɟi]. An alternative and possibly more accurate spelling may be *binyji*, but since it is commonly spelt *binji*, I prefer to maintain the standard spelling.
9 Across generations, positive emotions are more naturally described by *hapi* 'happy', *fil gud* 'feel good' or just *gud* 'good', and negative emotions by *sed* 'sad', *fil nogud* 'feel bad' or *nogud* 'bad'.

that are in fact frequent Kriol words, but sound more English, such as *sed* 'sad' or *apset* 'upset', reflecting Kriol purism.

(BKriol) 20140402b_000_JB 016 [El]
[Answering an explicit question about a heart metaphor in Kriol.]
(7) *Wi   yus-im-bat   nogud binji ole taim.*
     1pl.incl use-TR-CONT   bad   belly always
                                      feel.bad
     'We're always using *nogud binji.*'

(BKriol) 20140326a_002_MJ_QB 03 [El]
[Openly enquiring about emotion words in Kriol.]
(8) *Yeah oni lilbit   from wanim Kriol mela   god-um   ba...*
     yeah only a.little from HESIT Kriol 1pl.excl have-TR DAT
     feelings laik   ba   meik-im... ba   sei...
     [Engl]   CONJ DAT make-TR   DAT say
     gud binji   wen yu hapi, en   nogud binji wen yu sed...
     good belly   when 2sg happy and bad   belly when 2sg sad
     feel.good   feel.bad
     'Yeah, we have only a few in what-you-call-it Kriol for... feelings like to do...
     to say... *gud binji* when you're happy, *nogud binji* when you're sad...'

The metalinguistic salience of *gud binji* and *nogud binji* reflects a claim for cultural particularism: the BELLY AS A SEAT OF EMOTIONS metonymy reflects influence from Australian Aboriginal languages, local and distant, as opposed to English influence. The belly/emotion association is not particularly well represented in English, where the few emotional expressions involving the belly tend to relate to specific emotions such as courage. By contrast, as discussed in Section 2, the belly supports dominant tropes in Dalabon and is also significant in Rembarrnga. Compounds comparable to *gud binji* and *nogud binji* 'good/bad'+'belly' are attested in both languages (*kangu-burrama/weh-no* in Dalabon, *kangœ-wurlah/djarng* in Rembarrnga). Further, it is likely that *gud binji* and *nogud binji* originated elsewhere on the continent and were already in use in the early version of the language that was eventually adopted in the Barunga region. As mentioned in Section 2, the belly is treated as a seat of emotions in other regions of Australia, including regions through which the pidgins that gave rise to Kriol travelled (for instance, Kaytetye [Turpin 2002] in Central Australia, and Marra, non-Pama-Nyungan, Marran, near the Gulf of Carpentaria [Singer 2012], see Section 1.2, Figure 2).

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The presence of the BELLY AS A SEAT OF EMOTIONS metonymy in Kriol thus reflects broader Australian influence involving distant Australian Aboriginal languages, possibly reinforced by influence from local languages. In any case, the influence of English is not prevalent here, and this may explain why the expressions *gud binji* 'good'+'belly', 'feel good', and *nogud binji* 'bad'+'belly', 'feel bad', are treated as linguistic and cultural tokens, symbols of the local Indigenous identity, in spite of the fact that the actual linguistic frequency of these items is not particularly high.

3.2 Lesser incidence of figurative expressions

Among the four expressions listed in (4) above, the expressions *gud binji* 'good'+'belly', 'feel good', and *nogud binji* 'bad'+'belly', 'feel bad' are the only ones with a somewhat significant frequency in my corpus. The other two, *wan binji* 'one belly', 'be determined, not prevaricate', and *atkrek* 'heart'+'crack', 'be very surprised, be shocked', clearly result from Australian influence, but are very marginal in frequency.

Wan binji 'one belly', 'be determined, not prevaricate' (a valued personality feature), is almost certainly derived from distant rather than local Australian languages. Indeed, no comparable compound is clearly attested in Dalabon or other local languages, but on the other hand, such expressions are found in several Pama-Nyungan languages in the central and western regions of the continent.[10] *Atkrek* 'heart'+'crack', 'be very surprised, be shocked' finds full or close matches in the four Australian language of the Barunga region, and the heart is also represented as a seat of emotions in other parts of the Top End[11] as well as in more distant Australian languages.[12] Obviously, the heart/emotion association is also prevalent in English, but the particular mapping of the Kriol expression clearly resembles those found in local languages: Bininj Gun-wok has *kange-bakme* 'seat of emotions, heart'+'break', 'be shocked' (Garde 2011); Dalabon has *kangu-barrh(mu)* 'belly'+'crack', 'be surprised, undergo emotional shock' (Ponsonnet 2014a); Rembarrnga has *ngerh-boh* 'heart'+'crack', 'have a shock' (from my own 2014 data); and Jawoyn has *tor-war'-mang* 'heart'+'lift/blaze', 'be startled, have a shock' (Merlan and Jacq 2005b).

10 For instance, among the Marrngu, Ngayarta, Walmajarri, Wati and Ngumpin Yapa language groups (David Wilkins, personal communication, December 2015).
11 For instance, in Enindhilyakwa, Groote Eylandt, in the Gulf of Carpentaria (Waddy n d).
12 For instance, Kuuk Thaayorre in the Cape York Peninsula (Gaby 2008).

Wan binji 'one belly', 'be determined, not prevaricate' did not occur in spontaneous speech in my corpus – it was confirmed when I enquired about it.[13] *Atkrek* 'heart'+'crack', 'be very surprised, be shocked' did occur twice spontaneously, albeit with just one older speaker. Given that *gud binji* 'good'+'belly', 'feel good', and *nogud binji* 'bad'+'belly', 'feel bad', are only moderately frequent, altogether the lexicalized expressions that encapsulate the body/emotion association are far less widespread in Kriol than in Dalabon, whether in terms of the number of lexicalized expressions or in terms of their frequency in discourse. Sixty compounds have been documented in Dalabon, several of them frequent; by contrast, only four expressions have been documented in Kriol, only two of them frequent. The belly/emotion association, which results from Australian influence, is the association that has the highest frequency in speech (with the relatively common expressions *gud binji* 'good'+'belly', 'feel good', and *nogud binji* 'bad'+'belly', 'feel bad'), as well as conceptual and cultural significance (see Section 3.1). But overall, the actual linguistic incidence of this association in the lexicon and in usage is incomparably smaller than in Dalabon.

Given the extent of lexical resemblances between Kriol and Dalabon in the domain of emotions (Ponsonnet To appear-a), and given that creoles across the world are reported to calque compound expressions from their substrates (Holm 1988: 1986; Lefebvre 2004: 183–185, 205), the lower incidence of body-based emotional expressions in Kriol calls for an explanation. It could indeed be explained with reference to the principles of creole substrate transfer identified by Siegel (2008: 105–234). One of these principles, called the *availability constraint*, states that a function can only transfer from substrate languages into a creole if the superstrate offers a form that can be adequately reanalyzed. While Siegel's theory primarily concerns grammatical features, the same constraint may apply here. Indeed, it is not clear which English forms could have been reinterpreted to support body-based tropes.

On the other hand, the existence of the four lexicalized expressions discussed in the above sections indicates that figurative forms can also be innovations – the combinations of words in these expressions are not calqued from English. But this process of forming lexicalized expressions is not as frequent in Kriol as it is in Dalabon. We saw in Section 2 that in Dalabon, the main linguistic channel of expression of the body/emotion association is via compounds of the form [body-part noun+predicate] that have lexicalized an emotional sense. Most languages in the world – if not all – have compounds, but the reason why there exists such a large cohort of emotional compounds in Dalabon is that they

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13 Because it was listed in Lee's (2004) Kriol dictionary.

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derive from noun incorporation constructions. Since noun incorporation is very frequent in Dalabon, it offers large numbers of lexicalizable forms. By contrast, Kriol grammar does not feature noun incorporation as such. This is not surprising, given that noun incorporation is typical of polysynthetic languages and that Kriol, like most creoles, has a more isolating profile. The expressions *gud/nogud binji* 'good/bad'+'belly', 'feel good/bad' have lexicalized on the basis of a grammatical construction presented in Section 3.1 (S+adjective+body-part), but this construction is rare. While these features of Kriol do not entirely preclude compounds calqued from substrate languages, they are likely to restrain their emergence.

It is therefore possible that the mismatch between the isolating morphological profile of Kriol – with no clear noun-incorporation option – and the polysynthetic morphological profile of local Australian Aboriginal languages prevented, or at least limited, the occurrence of Australian emotional calques in Kriol. However, this hypothesis cannot stand as a unique and sufficient explanation for the figurative mismatch between the two languages. Indeed, in some other Australian languages (for instance, Kaytetye in Central Australia), body-based emotion tropes are conveyed by constructions that are not anchored in a compounding morphological pattern, but in argument marking. Further comparative research is needed to test this hypothesis.

Another principle of transfer proposed by Siegel (2008) is called the *reinforcement principle*. It states that in the process of creolization, the features that transfer from substrate languages to the creole are those that are common to a large number of substrates (see also Munro 2004). This could explain why, although Kriol speakers have formed some lexicalized expressions with body-parts to describe emotions, they have not formed more of them. Indeed, the BELLY AS A SEAT OF EMOTIONS metonymy is common to a number of Australian Aboriginal languages, and this could explain why it occurs in Kriol via *gud/nogud binji* 'good/bad belly', 'feel good/bad'. More specific metaphors with the belly, and tropes involving other body-parts, may be less widespread across Australian Aboriginal languages, and therefore less likely to occur in Kriol. In other words, tropes that are widespread in Australian languages may have had more chances to occur in Kriol. The reinforcement principle may also explain why *atkrek* 'heart'+'crack', 'be very surprised, be shocked' occurs in Kriol as spoken in and around Barunga, given that comparable tropes occur in all the languages of the Barunga area.

As noted in Section 1.2, the comparison between Dalabon and Kriol alone does not suffice to draw firm conclusions here. Further data on emotional tropes in Australian Aboriginal languages is needed before the above hypotheses can be tested and refined. Nevertheless, the present comparison suggests that purely

linguistic factors partly determine what tropes occur in Kriol, and that it will be worth scrutinizing the role of the morphological profiles of Australian languages in order to explain the selective transfer of figurative expressions for emotions into Kriol.

4 Non-conventionalized body-based tropes

As mentioned in Section 2, Dalabon makes frequent use of many lexicalized body-based emotion tropes (encapsulated in [body-part noun+predicate] compounds), but non-conventionalized tropes are relatively scarce. That is, most tropes are embedded in existing words, and speakers seldom create new ones for stylistic purposes. The reverse situation applies in Kriol: as presented in Section 3, lexicalized emotion tropes are limited to a handful of expressions with the belly and the heart; but on the other hand, speakers of Kriol make more extensive use of non-conventionalized tropes relying upon these body-parts. These tropes mostly occurred in the corpus in narratives, where the register is somewhat higher and the tropes have a stylistic impact. Some of the non-conventionalized body-based tropes instantiated in my Kriol corpus do display some continuity with Dalabon lexicalized emotion tropes. These are described in Section 4.1. On the other hand, I will show in Section 4.2 that non-conventionalized body-based tropes are not nearly as frequent in Kriol as lexicalized body-based tropes are in Dalabon.

4.1 Australian influence

Non-conventionalized metonymies in Kriol can represent the belly as the experiencer of emotions, matching belly-based lexicalized tropes in both Kriol and Dalabon. This is illustrated in (9), where the strength of the belly is associated with emotional strength, and in (10). In addition, in the second line of (10), the belly is explicitly treated as a locus or container of emotions (see below).

(BKriol) 20150819b_002_JBe 087 [Narr]
(9) *Dadsdewei ai bin meikim gud filing ba...*
     like.this 1sg PST make-TR good feeling DAT
     from tok-ing la fon, ebri dei...
     ABL talk-PROG LOC telephone every day
     Kip im strong... Strong-bala-wan binji...
     keep 3sg strong... *strong*-INDIV-SHIFT *binji...*

[right han
(chest anc
'This is h
day... Kee

(BKriol) 201403:
(10) *Im-in d*
      3sg-PST ti
      Im-in fi
      3sg-PST fe
      ba im
      DAT 3sgP
      'She's tied
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(11) *Main h*
      1sgPOSS h
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      ABL DET
      'My heart
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[right hand put on the belly then moves around the whole abdomen (chest and belly)]
'This is how I made [her] feel good... from talking on the phone, every day... Keep her strong... Emotionally strong [strong from the belly]...'

(BKriol) 20140326a_000_MJ_QB 128 (MJ) [Stim]

(10) *Im-in   daimap   mijelb   binji   na.*
      3sg-PST   tie   REF/REC   belly   EMPH
      Im-in   fil   nogud   na   im   binji,   ba   im...
      3sg-PST   feel   bad   LOC   3sgPOSS   belly   DAT   3sgPOSS
      ba   im   ekshen   wana   im-in   du.
      DAT   3sgPOSS   actions   what   3sg-PST   do
      'She's tied up in the belly [she is anxious] indeed.
      She was feeling bad in her belly, because of her... because of her actions, what she did...'

Thus, Kriol resembles Dalabon in treating the belly – rather than the heart like in English – as a seat of emotions. In addition, more elaborate metaphors occasionally occurred in the corpus, both with the heart and with the belly, and some of these closely matched Dalabon metaphors. In (10) above, negative emotions are represented as a tied belly, and in (11) below, emotional relief is represented as opening of the heart.

(BKriol) 20150819b_000_BB 090 [Narr]

(11) *Main   hat   bin   opin   na,   wen   ai   bin   kamat*
      1sgPOSS   heart   PST   open   EMPH   when   1sg   PST   go.out
      from   dat   shop   en   ai   bin   luk   im   deya,   im-in   gedof.
      ABL   DET   shop   and   1sg   PST   look   3sg   there   3sg-PST   get.off
      'My heart opened [I was very pleased] then, when I came out from the shop and I saw her there, she had got off [the bus].'

Both metaphors exist in Dalabon. The tied-belly metaphor in (10) falls under the RESISTANCE OF THE BELLY metaphor illustrated in (3) in Section 2. It also echoes the Dalabon compounds *yolh-dukkarrun* 'pep (energy), feeling'+'tie:REFL', literally 'entangled/tied feelings', 'be chronically anxious, depressive' (see Section 5.2 for associated gestures). As for the OPENING OF THE HEART metaphor, it falls under the accessibility metaphor, which applies to the belly rather than the heart in Dalabon: for instance *kangu-muk(mu)* 'belly'+'be covered, inaccessible', 'feel terrible', which was once translated in Kriol using *shat* 'shut'. The fact that these metaphors created by Kriol speakers resemble Dalabon metaphors does

not imply that they are inspired by Dalabon necessarily. Although we currently lack the data to assess how frequent these metaphors are in other Australian Aboriginal languages, there is evidence that they do occur. For instance, the accessibility metaphor is attested in Arnhem Land in Yolngu languages (Blakeman 2015). But at any rate, both metaphors must reflect Australian rather than English influence, since they are conceptually much closer to Dalabon metaphors than to English metaphors.

Some of the body-based emotion metaphors attested in Kriol are not attested in Dalabon, but are attested in other Australian languages. This is the case with the BELLY AS A CONTAINER metaphor, suggested in (10) above for emotions (second line, 'feel no good *in the belly*'), and more clearly attested in (12) for premonitions.

[BKriol] 20140406a_002_MJ 26 [Film]
(12) *Im gede strong-wan filing la im binji.*
3sg have strong-ADJ feeling LOC 3sgPOSS belly
'She has a strong feeling (premonition) in her belly.'

In Dalabon, the belly is not usually treated metaphorically as a container of emotions or intuitions,[14] but this metaphor is attested in several other Australian languages, for instance Kuuk Thaayorre (Cape York Peninsula) and Kaytetye (Central Australia). Kaytetye is located in Central Australia, i.e., in one of the regions which may have had an influence on Kriol (see Figure 2 in Section 1.2). Consistent with the existence of the container metaphor in Kriol, in pointing tasks, speakers with higher proficiency in Kriol located feelings in the belly when asked to locate them on the drawing of a human body. By contrast, speakers with lesser proficiency in Kriol and higher proficiency in Dalabon mostly located feelings in the head (see Ponsonnet 2014a:269). The responses of Kriol speakers in such tasks indicates that the association between emotions and the belly is conceptually valid for them.

English has container metaphors for emotions, but it is typically the heart rather than the belly that is treated as a container. Thus, as we already saw with some of the lexicalized body-based compounds, some of the non-conventionalized tropes attested in Kriol primarily reflect broader Australian influence, with some

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14 Emotions are not depicted as things in this language (see Section 2 and Ponsonnet 2014a: 295–297]), and therefore the belly cannot be depicted as a container that would contain them. Instead, it is depicted as the experiencer of emotions, hence the expression 'seat of emotions'.

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contribution from local Australian languages and from English. But as we will now see, these Australian-like tropes are in fact a minority.

4.2 Lesser incidence of body-based tropes

My corpus of Kriol contains nearly three times fewer body-based emotion tropes than non-body-based emotion tropes (less than 20 body-based vs. more than 55 others). Furthermore, the metaphors that display the clearest proximity with Dalabon – such as those presented in (10) and (11) above – were uttered by mature speakers who have some mastery of local Australian languages. Younger speakers with less knowledge of Australian Aboriginal languages did not produce Dalabon-like body-based emotion metaphors.

By contrast with Dalabon where the vast majority of emotion tropes associate emotions with the body, Kriol speakers often created emotion tropes that did *not* relate to the body. For instance, an emotion can be treated as a thing that someone has (13), or as a thing that can be seen (14).

(BKriol) 20150819b_002_JBe 046 [Narr]

(13) *Ai   nomo bin ab-u   dat... wori,   nogud-wan binji banga dat*
      1sg   NEG PST have-TR DET   concern   bad-ADJ   belly DAT   DET
      lil   gel.
      little girl
      Lit. 'I didn't have any concern, bad belly for this little girl.'
      Free 'I wasn't worried for this little girl.'

(BKriol) 20140326b_002_IA 107 [El]

(14) *Yeah dat bi... am   sodobe frait   deya,*
      yeah DET COP HESIT CONJ   fright/surprise there
      yu goda luk   dat frait.
      2sg FUT   look DET fright/surprise
      'Yeah, this would be like um, like a fright, you'll see the fright [get a fright].'

In these cases, the emotion is metaphorically depicted as an entity entirely independent of the person, and the body has no figurative role at all. Such EMOTIONS AS THINGS generic metaphors do not occur in Dalabon (Section 2, Ponsonnet [2014a: Chap. 8]).

The fact that, in Kriol, the body/emotion association is encapsulated in non-conventionalized tropes – rather than lexicalized tropes – suggests that

this association is conceptually relevant to speakers in spite of it not being supported by the lexicon. Thus, such representations find their expression outside of strict linguistic conventions, in tropes created by speakers irrespective of lexical constraints. However, in spite of the conceptual validity of the body/emotion association, and unlike what was observed in Dalabon, the role of the body in Kriol emotion tropes is not particularly prominent: non-conventionalized body-based emotion metaphors are relatively rare in Kriol speech. Thus, Kriol speakers' conceptual representations continue to associate emotions with the body, but as was observed with Kriol lexical tropes in Section 3, the linguistic incidence of this association remains marginal. This, in turn, shows that conceptual representations are not dependent upon their linguistic expression, and that conversely, the fact that speakers endorse certain representations does not imply that these representations must be linguistically prominent. In the context of language shift under consideration, conceptual and linguistic representations are largely independent of each other.

5 Body-based gestural metaphors in Kriol

Given the prominence of body-related emotion expressions across the world, it is to be expected that corresponding gestures will occur in many languages. However, little is known at this stage about the use of gestures in discourse about emotions (Kipp and Martin 2009), let alone the use of figurative gestures in this domain. Outside of this particular semantic domain there do exist studies of metaphorical gestures (Cienki and Cornelia 2008a; Cienki and Cornelia 2008b), but body-related metaphorical gestures have (to my knowledge) mostly been left aside.

More research is needed into the respective gesturing styles of Dalabon and Kriol, but a preliminary observation is that these languages display important differences in this respect. At least in my corpus, Kriol speakers tend to gesture more and to produce broader movements.[15] Nevertheless, there are some recorded instances of emotion-related gesturing in Dalabon (see Section 5.2), and in Kriol, gestures offer a very clear instantiation of the figurative association

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15 While some Australian languages have fairly developed sign languages (Kendon 1988), Dalabon only has a more limited system of signs for communication at a distance. Speakers of Kriol who cannot speak Dalabon do not, to my knowledge, master these signs.

between emotions and the body. When talking about emotions, most speakers of Kriol produced conventionalized gestures involving the heart or upper chest (23 gesturing sequences), and sometimes the belly (7 gesturing sequences), or both (the whole abdomen). In Section 5.1, I present emotion-related gestures that involve the heart only, and in Section 5.2, those that involve the belly or the whole abdomen. In Section 5.2, I show how some less conventionalized Kriol gestures involving the belly relate to metaphors that are not attested as verbal metaphors in Kriol, but are attested as verbal metaphors in Dalabon. This indicates that some Dalabon figurative representations of emotions are retained in gestures even though they are not retained in speech.

5.1 Heart-related gestures

Heart-related gestures are inherently indexical to the extent that they point at an organ, but in Kriol their locations and hand shapes are regular enough to consider these gestures conventionalized. When talking about emotions, Kriol speakers sometimes pointed to the left of the breast, where the heart is supposed to be, but they usually pointed to more central areas, on or above the breast, as in the examples below. The hand was often entirely and wide open, although there were also slacker movements (17). The hand was usually laid still on the chest for a few seconds, or – more rarely – it tapped the chest a couple of times (then reinforcing container metaphors – see Section 4.1 above, and below).

(BKriol) 20140328c_005_AA 51 [Narr]
(15) AA *Laik dei bin tokebat   im   en   den   meik,*
         CONJ 3pl PST talk.about 3sg and then make
         am   mam en   dad en   mi   a... [searching for word]
         HESIT mum and dad and 1sg HESIT
                                    [hand on heart, illustrated in Figure 3]
     IA *Apset.*
         Upset
     AA *Apset en   yuno krai.*
         upset and CONJ cry
         [hand on heart]
     'AA Like, they were talking about him and this made, um Mum and Dad
          and myself um...
     IA Upset.
     AA Upset and you know, cry.'

Figure 3: Speaker resting hand on heart while searching for an emotion word (15).

(BKriol) 20140326b_002_IA 065 [El]

(16) *Yeah ai fil, am... ai fil hapi na.*
yeah 1sg feel HESIT 1sg feel happy EMPH
[hand on chest all along, illustrated in Figure 4]
'Yeah, I feel, I feel happy that's it.'

(BKriol) 20140

(17) *Laik im*
CONJ 3sg
[hand or
'Like she

Figure 4: Speaker resting hand on chest while defining an emotion word (16).

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(BKriol) 20140407a_001_MJ_QB 069 [Film]

(17) *Laik im goda filing...*
      CONJ 3sg have feelings
      [hand on chest all along, illustrated in Figure 5]
      'Like she has a feeling (premonition)...'

Figure 5: Speaker resting hand on chest while unfolding a dramatic moment in a narrative (17).

Heart-related gestures occurred in the corpus in association with a broad range of positive and negative emotions including anger, compassion, fear, love, surprise, and more. Most heart-related gestures co-occurred with an emotional word (20 occurrences out of 23), which often constituted the starting point of the gesture. Speakers typically gestured towards their heart or chest when reaching an emotional climax in emotional narratives; when searching for an emotion word (15); or when asked to define an emotion word (16), in which case speakers relied on gestures to convey expressive content. At other times, gestures were more controlled, and intended for stylistic effect (17).

In only 3 occurrences was the heart verbally mentioned, so that the gesture simply repeated the heart/emotion association already established in speech (Cienki and Müller 2008a: 487–488). In most cases (all the above examples), however, the heart/emotion association was established by the gesture alone (Cienki and Müller 2008a: 488–491). In some cases, the gesture complemented a verbal metaphor in a relatively explicit way, conveying a container metaphor: in

(17), the speaker used a verbal metaphor of attribution (A FEELING IS LIKE SOMETHING ONE HAS), while the gesture suggested a container metaphor, A FEELING IS LIKE SOMETHING ONE HAS IN ONE'S HEART/CHEST. Thus, gestures contribute to the figurative association between emotions and the heart or chest. This association also surfaces in lexicalized expressions (see Section 3) as well as in non-conventionalized tropes (Section 4); but in both types of verbal metaphors it remains marginal compared to belly-based tropes. With respect to gestures, by contrast, the heart is more frequently associated with emotions than the belly.

5.2 Belly-related gestures

Only 7 gesturing sequences of my Kriol corpus involved the belly alone, vs. 23 for the heart. In addition, there were gestures involving both the belly and the rest of the abdomen (see below). Like heart-related gestures, belly-related gestures occurred in emotional narratives, with stylistic or expressive effects, and when searching for a word while giving a definition. Unlike with the heart, speakers mostly used belly-related gestures when the belly was explicitly mentioned (all sequences but one), thus flagging verbal metaphors. In concord with their smaller number, belly-related gestures occurred in a more consistent range of contexts than heart-related gestures: with generic emotions ('feel') or with negative emotions (worrying), plus one occurrence when defining *stabun* 'selfish'. Contrary to heart-related gestures where the hand was usually static, gestures involving the belly were more dynamic, and featured more diverse hand trajectories. In several instances, the movements of the hand(s) on or in front of the belly conveyed metaphors. Interestingly, the metaphors in question did not always match metaphors attested as verbal metaphors in Kriol; instead, several of them matched metaphors attested in Dalabon.

The clearest case was a metaphorical sequence in a short Kriol narrative about feeling relieved of anxiety by talking to a close relative. The gestures, rendered in Figure 6, involved the belly and the rest of the abdomen, with flat open hands moving together downwards from the upper chest to the bottom of the belly, at some distance from the body. The hands were then brought back up and the downwards movement was repeated seven times, while the process leading to emotional relief was being verbally unfolded. Some of the downwards movements were synchronized with the words *gud, gudwan* ('good', for feel good) and *sedeldan* 'calm down' (< Eng. 'settle down').

(BKriol) 20140326b_002_IA 151 [ContEl]

(18) IA   *[Ai] wandi tel-i dat olgemen ba kam, en selimdan mi.*
         1sg want tell-TR DET woman DAT come and calm.down 1sg
                  [2 downwards gestures further from trunk]
         Im tok, oh, yu don't need to agumen garra yu femili said,
         3sg tok oh [Eng.]   argue COM 2sgPOSS family side
         en lakijat yuno. En im meik-im mi fil, ebrithing, yuno...
         and CONJ CONJ and 3sg make-TR 3sg feel everything CONJ
                  [cycles of downwards movements starting]
         Im meik-i fil-im ebrithing, gud na, yeah gud-wan.
         3sg make-TR feel-TR everything good EMPH yeah good-ADJ

   MP *Im sedeldan...*
        3sg calm.down

   IA   *Im sedeldan.*
        3sg calm.down

   'IA   I should tell that woman to come and make me feel appeased. She says, 'oh, you don't have to argue with your family', and things like that you know. And she makes me feel, everything, you know... She makes me feel good all the way, yeah, good.

   MP It calms down...

   IA   It calms down...'

Figure 6: One cycle of the metaphorical gesture in (18). FEELING GOOD IS LIKE SOMETHING GOING THROUGH THE ABDOMEN.

The metaphor encapsulated in this sequence of gestures is EMOTIONAL RELIEF IS LIKE SOMETHING GOING THROUGH THE ABDOMEN. The metaphor is relatively intuitive, but it does not match any verbal metaphor attested in Kriol (or in English), whether lexicalized or not. On the other hand, a very similar metaphor is attested in several Dalabon lexicalized compounds, for instance *kangu-yowyow(mu)* 'belly'+'flow', and others as listed in (19).

(19) Dalabon compounds conveying

FEELING GOOD IS LIKE SOMETHING GOING THROUGH THE ABDOMEN

kangu-yord(mu) 'belly'+'clear way, body fluid be released',
            'get rid of negative feelings'
kangu-yowyow(mu) 'belly'+'flow', 'feel good, be nice'
kangu-yurd(mu) 'belly'+'run, flow', 'feel good'

These compounds associate positive emotions with the representation of something going through the belly, consistent with the general metaphor of the resistance of the belly (Section 2): a belly that does not resist lets things go through. Although speakers in the Dalabon corpus did not gesture much, this metaphor was enacted in gestures by the most proficient Dalabon speaker.[16] Here, the sequence occurred in a narrative about emotional redemption: someone who is emotionally unwell finds peace and stability when turning to God.[17] The sequence is presented below in snapshots (a) through (e) in Figure 7 (the final stage of this gesture will be discussed further below). The speaker moved her right hand from the very top of her chest just below the neck, down to the lower part of her belly, in a swift movement. This gestural metaphor accompanied the metaphorical compound *kangu-yurd(mu)* 'belly'+'run/flow', 'feel good', used when describing emotional relief (feeling good after feeling bad). Similar gestures have also been observed accompanying comparable metaphors in Kunwinjku (Bininj Gun-wok dialect).

(Dal) DAL_2012_06_13_05_SC_VID – 4'50 (MT) [Stim]
(20)   [photos a, b]
    Bulu-ngokorrng   nga-h-djaw-iyan,
    father-1pl.inclPOSS   1sg>3-R-ask-FUT
    [photos c, d, e, f]
    nga-h-lng-kangu-yurd-miyan,,
    1sg-R-SEQ-belly-run-FUT
                feel.good
    [photo g]
    mak   nga-woh-kangu-dinjirr-miyan.
    NEG   1sg-a.bit-belly-HATE-FUT
    'I'll ask God, and I'll feel good then [I will flow from the belly, I will belly-run], I won't be mean again [I won't have bad feelings from the belly].'

Figure 7: First
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16 She also speaks Kriol as a second language, but Dalabon is her native language and her Kriol is not standard.
17 This sequence was videoed by Sarah Cutfield on behalf of Nick Evans, as part of a Family Picture Task elicitation (San Roque et al. 2012). I thank them for sharing the data with me.

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Figure 7: First row: a, b, c; second row: d, e, f. As she mentions God, the speaker puts her hand on her heart (a), pointing to her heart with her index finger. When explaining that the character of the story will feel better *(kangu-yurd(mu))*, she moves her hand down from her heart to her navel (b, c) and lower, and then away from her belly and up in a swift gesture (d), and finally lifts her open hand up again, facing outside (e). Unfortunately, the movement is so fast that it is hard to capture in still pictures. In (f), the speaker brings her hand back to her belly and produces a second metaphor (see below).

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In spite of very different realizations, there are important resemblances between the Dalabon gestures in (20) and the Kriol gestures in (18). Both sequences represent something going through the belly, and therefore they both instantiate the same metaphor: EMOTIONAL RELIEF IS LIKE SOMETHING GOING THROUGH THE ABDOMEN/BELLY. In Dalabon, this metaphor accompanies a conventional verbal metaphor encapsulated in the lexicalized verbal compound *kangu-yurd(mu)* 'bel-ly'+'run/flow', 'feel good'. In Kriol, on the other hand, the metaphorical gesture does not accompany a verbal metaphor: it is the sole expression of a metaphor that is not attested as a verbal metaphor anywhere else in my corpus. This suggests that Kriol speakers' gestures can reflect Dalabon (or Australian) meta-phors, even when these are not reflected in Kriol speech.

While the gestural sequence discussed above is the clearest to illustrate how Kriol speakers produce gestures that match Dalabon rather than Kriol verbal metaphors, the case is not unique. In another case, involving another young Kriol speaker and a different metaphor, the speaker moved her open, flat right hand twice, from left to right, on her lower belly, as she used the word *nogud binji* 'bad'+'belly', 'feel bad' in a narrative about family distress. This gesture, which occurred twice in the two-minute long narrative, evokes a physical barrier and echoes the metaphorical Dalabon compound *kangu-kurduh(mu)* 'belly'+'blocked', 'feel anxious'. As in the previous case, I have found no comparable verbal metaphor in Kriol.

In yet another gestural metaphor, a Kriol speaker moved her hand in small circles towards the higher part of the belly. This gesture was used twice by two different speakers when talking about emotional concerns. One of the occurrences (not presented here) was in conjunction with the word *nogud binji* 'bad'+'belly', 'feel bad', with no other verbal metaphor. In (21), the circling gesture accompanied a verbal metaphor FEELING CONCERN IS LIKE HAVING A TWISTED BELLY, but the twist metaphor was only approximately reflected in the circling gesture.

(BKriol) 20140326a_001_MJ_QB 185 (MJ) [Stim]

(21) *Im-in   fil-ing   nogud na...*
      3sg-PST feel-PROG bad   EMPH
      Ba im binji bin twist-ing   na   laik...
      DAT 3sg belly PST twist-PROG EMPH CONJ
      Im-in   fil nogud.
      3sg-PST feel bad
      'She was feeling bad then... Her belly was twisting indeed like...
      She was feeling bad.'

For this gestural metaphor also, there exists a Dalabon lexicalized emotional compound that associates circling with negative emotions. *Yolh-boled(mu)* 'pep (energy), feelings'+'turn' means 'have a tantrum, be capricious/feel negative about someone close'. *Boled(mu)* can mean 'turn around' or 'turn on oneself', thus linking circling movements and negative emotions. Furthermore, the corresponding belly-based gesture is attested in Dalabon. In (20) above, after the EMOTIONAL RELIEF IS LIKE SOMETHING GOING THROUGH THE ABDOMEN/BELLY sequence, the speaker explains that the character will no longer feel bad. As she says this, she moves her hand back onto the higher part of her belly and sketches a circling movement. This movement is very similar to the belly-related gesture observed in Kriol in conjunction with the twisted belly metaphor (21).

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This is thus a second instance of a Kriol metaphorical gesture matching a Dalabon metaphorical gesture. In this case, the gesture in Kriol accompanied a verbal metaphor that came close to the gestural metaphor (twisting belly in verbal metaphor, turning belly in gestural metaphor). Yet, a Dalabon lexicalized expression offers a possibly better match (turning feelings for negative feelings), and the Kriol gesture is remarkably similar to the Dalabon gesture.

This data shows that in at least four occurrences, and for at least three speakers and three different metaphors (one of them instantiated twice), Kriol gestural metaphors come closer to Dalabon than to Kriol verbal metaphors. In two of the cases presented above, the speakers' gestural metaphors are not matched verbally in Kriol, but they do match lexicalized Dalabon metaphors. While these observations concern a low number of occurrences and speakers, this should be compared to the size of the corpus considered in this study. My videoed Kriol corpus is a ~9-hour subset of the full corpus (Section 1.1), comprising just 11 speakers and less than a dozen gestures involving the belly. Compared to these figures, the occurrence of 'Dalabon-like' metaphorical gestures is not insignificant, and possibly a relatively widespread phenomenon in Kriol speech. In any case, here a single occurrence would suffice to demonstrate the most important point. Indeed, the fact that Kriol speakers' gestures are not matched verbally in Kriol but do match Dalabon metaphors shows that speakers *can* continue to endorse certain conceptual representations even when these representations are no longer encoded linguistically in the language they have shifted to. A single occurrence of mismatch between gestural and verbal metaphors suffices to demonstrate that this dissociation is possible, confirming that *conceptual* figurative representations *can* persist through language shift independently of (verbal) *linguistic* figurative representations.

5.3 Australian influence

Kriol speakers use a diverse repertoire of body-related metaphorical gestures when talking about emotions, and the figurative role of the body with respect to the description of emotions is evident in these metaphorical gestures. As in metaphorical lexicalized expressions (Section 3) and non-conventionalized tropes (Section 4), the body-parts associated with emotions are the heart and the belly. However, there is a mismatch between verbal metaphors and gestures: while the belly is prevalent in the former, the heart is prevalent in the latter, with respect to frequency. Since the heart/emotion association occurs in English as well as in Australian languages, the origin of the gestures is difficult to assess. Given that Kriol heart-based gestures resemble those observed in English, and

that such gestures have not been observed in Dalabon, English influence is possible.

These last observations do not apply to gestures involving the belly. As discussed in Section 5.2, the Kriol belly-related gestures in my corpus included at least three metaphorical gestures that matched verbal lexicalized emotion metaphors found in Dalabon, with sometimes no corresponding verbal metaphor attested in Kriol. This does not necessarily imply that the gestures of Kriol speakers are directly borrowed from Dalabon, as Kriol may follow more distant Australian languages. But in any case, it is clear that Kriol belly-related gestures result from Australian rather than English influence.

5.4 Gestures and language shift

The persistence of Dalabon/Australian metaphors in gestures could be explained in two ways. The first scenario is that early speakers of Kriol retained some conceptual representations corresponding to Australian emotion metaphors. Early speakers of Kriol were bilingual, or at least passive speakers of Australian Aboriginal languages; therefore, they were exposed to Australian emotion metaphors, and could have borrowed the conceptual representations and their corresponding gestures together. Alternatively, a second scenario is that these metaphorical gestures could have made their way into Kriol on the basis of blind gestural imitation – with no transfer of conceptual representations. Given that the formal realizations of the gestural metaphors can be very different in style in Kriol compared to Dalabon, this scenario is less likely. At a minimum, some of the Kriol gestures must have been conceptually reinterpreted before being adapted to the Kriol gesturing style. This implies that the gestures correspond to actual conceptual representations for Kriol speakers, whether by direct borrowing of Australian representations of emotions, or by reinterpretation of imitated gestures.

Irrespective of these scenarios, it is remarkable that Kriol figurative gestures can convey metaphors that were inspired (more or less directly) by the verbal metaphors of some Australian Aboriginal languages, but no longer correspond to attested verbal metaphors in Kriol. At least in this context of language shift, metaphors appear to be more persistent in gestures than in speech. This is in line with Cienki and Müller's (2008a: 491–492) observation that some metaphors can persist in gestures even though they are no longer perceptible as verbal metaphors, because their carrier expression has become opaque. For instance, the German word *Depressivität* 'depression' relates etymologically to the metaphor SAD IS DOWN; but this is now opaque for most German speakers.

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Nevertheless, German speakers produce metaphorical gestures of the type SAD IS DOWN when using the word *Depressivität*. That is, gestures can retain metaphors that are no longer accessible verbal metaphors. The case of Kriol belly-based gestural metaphors is, however, different, because in at least some cases there is not even a trace of the original metaphor in the spoken language. Thus, gestures seem prone to persisting through language change and language shift, possibly because of their iconic dimension.

The above analysis of Kriol gestures related to emotions shows that while the figurative body/emotion association is less salient in Kriol verbal tropes than in Dalabon verbal tropes, this association still surfaces in Kriol gestures. Therefore, the body/emotion association is conceptually relevant to speakers in spite of its relatively low incidence in conventionalized linguistic representations. This is in line with observations, made in Section 3.1, that the Kriol lexicalized expressions that encapsulate this association are metalinguistically salient for speakers: their metalinguistic status reflects their conceptual relevance.

The conceptual persistence of this association reinforces the need to explain the rarity of the body/emotion association in the language itself (Section 1.3). Sociolinguistic factors cannot explain this relative scarcity: Section 3.1 showed that speakers are willing to emphasize cultural specificities and are therefore unlikely to suppress this aspect of their language for ideological reasons. Instead, it was suggested in Section 3.2 that purely linguistic factors, such as the morphological profile of the language or the mechanisms of substrate transfer, are probably better explanations. That is, while the *conceptual* body/emotion association seems relatively independent of linguistic forms, the *linguistic* instantiation of these conceptual representations may depend more strongly upon structural linguistic parameters. It will become possible to shed further light upon these factors when more data on the figurative encoding of emotions in Australian Aboriginal languages and in varieties of Kriol is available.

6 Conclusion

This article has discussed figurative descriptions of emotions in Kriol, comparing them with the figurative features of Dalabon, one of the Australian Aboriginal languages that has been replaced by Kriol. As shown in Section 2, the figurative association between emotions and the body is linguistically prominent in Dalabon: the language has a large number of emotion tropes relating mostly

to the belly, and in some cases to the heart. These tropes are frequent in Dalabon ordinary speech, and they are conceptually relevant to the speakers. Although Kriol presents important similarities with Dalabon in many respects in the domain of emotions, the two languages differ in their figurative treatment of emotions. Indeed, the linguistic prominence of the figurative body/emotion association observed in Dalabon is not matched in Kriol, where the association does surface, but is not nearly as salient linguistically as in Dalabon.

Kriol does have a few body-based lexicalized expressions referring to emotions. These expressions result from the influence of Australian Aboriginal languages upon Kriol, and mostly feature the belly, which is much more commonly associated with emotions in Australian languages than in English. Some of these belly-related expressions are metalinguistically salient for speakers, reflecting the conceptual and cultural salience of the belly/emotion association. But in spite of their metalinguistic salience, the Kriol expressions that associate the body with emotions are few in number, and are not particularly frequent in actual speech. Apart from these lexicalized expressions, speakers of Kriol also create body-based tropes to describe emotions when they are less constrained by linguistic conventions and grammar: namely in non-conventionalized tropes created online by a given speaker, and in metaphorical gestures involving the belly. The influence of Australian Aboriginal languages is thus perceptible in non-conventionalized metaphors, and is particularly clear in gestures. Indeed, some belly-based metaphorical gestures lack a corresponding verbal metaphor in Kriol, and instead relate to Australian verbal metaphors. However, even these non-conventionalized tropes and metaphorical gestures are low in frequency, and therefore not very salient linguistically. Their existence demonstrates that Kriol speakers do associate emotions with the body conceptually, but these conceptual representations do not have such a high linguistic incidence as in Dalabon.

These observations raise several questions. One of them has to do with figurative language in creoles in general, and with the question of the influence of languages other than the superstrate with respect to figurative language. In the case at hand, while this article shows that Australian Aboriginal languages have *some* influence upon Kriol emotion-related figurative features, it also makes clear that this influence is relatively minor. Australian languages seem to have a stronger impact with respect to lexical semantics, for instance (Ponsonnet To appear-a), than with respect to figurative language. What about figurative language in other creoles around the world? Calques of figurative expressions have sometimes been mentioned in the literature (Holm 1988; Lefebvre 2004; inter alia), but systematic explorations could reveal that these cases remain marginal, as suggested by Levisen (2016) about Bislama. Or alternatively, is Kriol an exception in this respect?

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Another question is how to explain the absence of linguistic instantiation of the body/emotion association in Kriol. Given that the body/emotion association is conceptually relevant and metalinguistically salient for speakers of Kriol, its lower linguistic incidence cannot result from conceptual irrelevance or from sociolinguistic factors, but rather from independent linguistic factors. Some of the principles of substrate transfer identified by Siegel (2008: 105–234) may be relevant here. Siegel's reinforcement principle could contribute to explaining the selection of lexicalized expressions that have been calqued from Australian languages (Section 3): as expected, all of these expressions convey tropes that are common to a relatively large number of Australian languages. This suggests that the most widespread Australian tropes are more likely to be matched in Kriol. Likewise, Siegel's availability constraint points to the absence of forms available for figurative interpretation as a possible factor explaining why so few lexicalized expressions have been calqued. English does not offer large numbers of collocations formally comparable to Australian body-based expressions, and therefore this figurative feature of Australian Aboriginal languages had nowhere to transfer to. Contrary to Dalabon, Kriol offers no frequent grammatical tool to *create* such forms. In Dalabon, as in most polysynthetic languages, the availability of such forms results from the widespread use of noun incorporation as a grammatical construction; but Kriol, being mostly isolating, does not have such a process. The construction that has served as a base for the few lexicalized figurative expressions discussed in this article is not frequent at all. Thus, the discrepancy in morphological profiles – and the absence of noun incorporation in particular – could contribute to explaining the rarity of lexicalized figurative expressions for emotions in Kriol. This is certainly not a sufficient explanation, since there exist languages around the world and in Australia that are isolating and build body-based figurative collocations by other means than noun incorporation. Nevertheless, discrepancies in morphology may play a role in the situation under consideration. Both the above hypothetical explanations for the low incidence of the body/emotion association in Kriol can be elaborated further when more data on the linguistic encoding of emotions in Australian Aboriginal languages becomes available.

A third, significant conclusion to be drawn from the comparison between Kriol and Dalabon is that in the context of language shift, *conceptual* figurative representations of emotions are not dependent upon *linguistic* forms. Conceptual representations can persist when their linguistic instantiations have largely disappeared. Reciprocally, the fact that speakers continue to endorse certain conceptual representations in the context of a cultural shift does not imply that these representations will surface linguistically. Overall, in the context of language shift, conceptual and linguistic representations are independent of each

other. Linguistic figurative representations of emotions appear to be more sensitive to linguistic parameters such as the dynamics of language contact, or the typological profiles of the languages in co-presence.

These conclusions align with previous studies of continuities in language shift on the Australian continent. Indeed, Meakins's (2011) analysis of linguistic directional devices and descriptions of space in Gurindji Kriol (a mixed language that competes with Gurindji, Pama-Nyungan, Ngumpin) suggests that speakers who have shifted to Gurindji Kriol retain certain conceptual representations of space in spite of massive linguistic transformations. With respect to continuities of discourse practices and communicative functions, several studies have shown that these features are also maintained in language shift to varieties of Kriol, irrespective of discontinuities in grammatical devices (Hoffman 2012; Nicholls 2013; Dickson 2015; Ponsonnet To appear-b). It thus seems that, on the Australian continent at least, grammatical linguistic devices do not have enough weight that they would modify conceptual patterns and communicative functions in language shift.

However, the question of the persistence of this continuity through time remains open to future research. Given that the conceptual association between the body and emotions is not strongly supported linguistically, will future generations of Kriol speakers continue to perceive emotions as strongly connected to the body and to the belly in particular? Will they continue to create tropes and gestures that instantiate these associations? Or will these conceptual associations and their linguistic output eventually become backgrounded, if they actually depend upon a larger number of linguistic instantiations to nourish them over time?

Abbreviations not listed in the Leipzig glossing rules

CONJ	conjunction
CONT	continuous aspect
EMPH	emphasis
h	high(er) on scale of animacy
HESIT	hesitation
INDIV	individualizer
PI	past imperfective
PP	past perfective
R	realis mood
REC	reciprocal
REDUP	reduplication

REF	reflexi
SEQ	seque
SHIFT	nomin
SUB	subor
TR	transi
[ContEl]	conte
[ConvEl]	conve
[El]	standa
[Film]	comm
[Narr]	narrat
[Stim]	respor

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REF	reflexive
SEQ	sequential
SHIFT	nominal shifter
SUB	subordinate marker
TR	transitive marker
[ContEl]	contextualized elicitation
[ConvEl]	conversation during elicitation
[El]	standard elicitation
[Film]	comment on movie
[Narr]	narratives
[Stim]	response to elicitation stimuli

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