Beer, doonas, books and blankets: Contrasting reflexives and pronouns in locative PPs in Australian English

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Abstract

Anaphors carry more semantic information than merely syntactic coreference relations. This has been hinted at by at least Thráinsson (1976, 1991), Sigurðsson (1986), Kemmer (1995), Reuland and Sigurjónsdóttir (1997) and Strahan (2001). Perspective shift is a well-known effect of different anaphors (eg Maling 1984), but other aspects of the meaning carried by reflexive and pronominal anaphors, such as 'contact' and 'nearness' associated with reflexives, are less well documented. This paper analyses responses to an online questionnaire from 59 Australians, who gave judgements on the use of reflexives and pronouns in four sentences combined variously with 12 different scenarios. Preliminary results show that these speakers of Australian English identify aspects other than perspective as the main difference between reflexives and pronouns.

Keywords

Anaphora, Reflexives, Pronouns, Semantics, Perspective, Quantitative Study

Introduction

Anaphors¹ are not merely tools for indicating coreference, they also add semantic content to an utterance. In this exploratory paper, the meanings associated with third person pronouns and reflexives are investigated, with a focus on these four sentences in English:

(1) a. Drent ₁ ind the book behind \lim_{i} infiscing.	(1)	a.	Brent _i hid the book behind him _i / himself _i .
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- b. Lucien_i pulled the doona over him_i/ himself_i.
- c. $Cliff_i$ put the beer beside $him_i/himself_i$.
- d. Sarah_i put the blanket under her_i/ herself_i.

These sentences all have an anaphor in a locative PP, either in an adjunct (eg (1a, b) or in a complement (eg (1c, d)), and are commonly referred to as 'non-prototypical' anaphors, since they are not direct syntactic arguments of the verb, and the reflexives are not in complementary distribution with the pronouns².

The main 'meaning' associated with anaphors is generally considered to be perspective, where a reflexive is used to show that the action is referring to the perspective-holder, while a pronoun is used to show that the action refers to a nonperspective-holder (eg the reader/listener). This is a robust feature of anaphors, and has been shown for eg Icelandic (Sigurðsson 1986, Thráinsson 1976), English (MacWhinney, in press; Oshima 2004 'pov-o-phors'), Norwegian (Knudsen 1949), Swedish (Wellander 1973), Japanese (Kameyama 1984) and many other languages. McCready (2004) formalises perspective shift in logical terms, and thus is similar to Sigurðsson (1986) who formalised perspective shifts in Icelandic, in terms of primary and secondary egos. Kuno (1987) describes perspective as 'empathy', which he defines at leastly partly in terms of 'camera angle'.

¹ I use the term 'anaphor' in a non-theoretical sense, to refer to any expression that itself does not refer, but that gets its reference through being coreferential with another expression (whether overtly expressed or not). Here, I will be talking about reflexives and pronouns only, ignoring reciprocals and other general, non-referring expressions.

² The anaphors in these sentences therefore do not obey the Complementarity Principle of standard generative theory, as predicted by Principle A ('a reflexive must find its antecedent within the same syntactic clause as itself') and Principle B ('a pronoun cannot have an antecedent within the same syntactic clause').

However, while much attention has been paid to 'reflexives as logophors' (eg Maling 1984) and perspective shifts associated with reflexives versus pronouns, very few publications to my knowledge have considered the semantics of reflexives – Postma (1997) and Strahan (2001, 2006) are among the few that exist, although others, such as Montalbetti (2003: 134) also mention it as a factor, stating "It is clear [...] that pragmatic and syntactic and semantic forces come into play in the determination of contextual frames, structural conditions, and predicational values respectively in the treatment of our problem [of anaphora processing]. Sorting them out is not trivial, though." Postma (1997) looked at Dutch anaphors, and concluded that the reflexive denotes some sense of a body, a person and their values, as well as adding intentionality or deliberateness to the antecedent's action. Van Hoek (1997: 181), based on Kuno (1987), describes implications associated with the use of reflexives in these constructions, but does not generalise her observations. Strahan (2001) looked at possessive anaphors in Norwegian and Swedish, adding 'nearness/contact' and 'previous ownership' to the list of a reflexive's attributes, both of which can be seen as related to a person and their body. Strahan (2006) showed that, in Norwegian, a reflexive is only used if it is within the same intonational phrase as its antecedent.

The goal of this study is to ascertain whether, as well as shifting the perspectiveholder, these other semantic elements may also be a part of the meaning of reflexives and pronouns in Australian English. This will be done by testing four sentential frames that are frequently cited in the literature to illustrate the complementarity of pronouns and reflexives (eg Reuland and Everaert, 2003, van Hoek, 1997, Kuno, 1987, Postma, 1997, Popowich, 1989, Bily, 1983, Lidz, 2001). The current study is an initial exploration only, with results indicating that this approach is worth pursuing further.

I start with a presentation of the methodology used in this study, as it is highly experimental and thus useful to have documented. Results and discussion follow.

Methodology

- (1) a. Brent_i hid the book behind $him_i/himself_i$.
 - b. Lucien_i pulled the doona over him_i/ himself_i.
 - c. Cliff_i put the beer beside him_i/ himself_i.
 - d. Sarah_i put the blanket under $her_i/herself_i$.

These four sentences and videos illustrating the potential scenarios (detailed below) were shown to 59 Australians and 6 non-Australians. 37 (57%) were female, 28 (43%) male, with a mean age of 29.7 years (range 18-65). All speakers conducted the task of matching the sentences and scenarios in 22 'best-fit' questions. There were two parts to this web-based questionnaire. In the first part, the speakers played two short (5 second)

video (quicktime) clips showing an activity from two different perspectives or illustrating two different scenarios (elaborated below) which could be represented by a sentence, eg 'Lucien pulled the doona over him'. Speakers were asked to choose the clip that best fit the sentence. They could also select 'both' clips or 'neither', with room for futher comments. Part 2 reversed the sentence/clips, showing two sentences, but only one video clip. Speakers were asked to choose the best sentence to describe the clip's action, with 'both' and 'neither' also possible, and room for comments available. Part 1 is thus about how the informant interprets the given sentence, part 2 is about how the informant would phrase a given scenario.

For sentence (a), the two scenarios started with Brent sitting in a chair facing the camera. In scenario one, he gets up, walks behind his chair, puts his book in the cupboard, then sits back in the chair. Since there is now no contact between Brent and the book, a pronoun (Brent hid the book behind him) is predicted to be the preferred anaphor here. In scenario two, Brent remains seated, and puts the book behind his back. Since there is physical contact, a reflexive (Brent hid the book behind himself) is predicted to be the preferred anaphor. There is no change of perspective video for this sentence.

For sentence (b), four scenarios were filmed. The first two scenarios are filmed from an outsider's perspective, showing Lucien lying on a bed, and pulling a doona up to cover his body (scenario one), and pulling the doona up over his head to cover all of himself (scenario two). It is expected that scenario one will be most compatible with a pronoun (Lucien pulled the doona over him) since there is nothing in the action to suggest anything specially reflexive/self-oriented, while scenario two will be most compatible with a reflexive (Lucien pulled the doona over himself), since his whole body is being covered. The second two scenarios associated with this sentence are shown from Lucien's perspective. Thus, scenario three shows a body, with hands pulling the doona towards the camera, finishing with the hands still in sight, holding the top edge of the doona. This is potentially compatible with a reflexive, since perspective effects may come into play. Scenario four starts the same as scenario three, but the doona gets pulled up over the camera (ie over Lucien's head). It is predicted that, of these four scenarios, this sentence will be the most likely to have a reflexive, since there are two factors - whole body being covered and third party's perspective - each contributing to a meaning expressible by a reflexive and not a pronoun.

For sentence (c), the two scenarios started with Cliff sitting in an armchair facing the camera, holding a beer bottle. In scenario one, he places this bottle on the chair of the arm. Scenario two shows the same action, but from Cliff's perspective. Scenario one is thus predicted to be preferred with a pronoun, while scenario two is predicted to be preferred with a reflexive.

Finally, for sentence (d), there are four scenarios, each starting with Sarah standing in front of a bench holding a blanket. The first two scenarios show Sarah putting the blanket on the bench behind her and sitting on it, scenario one from an outsider's perspective, scenario two from Sarah's perspective. The second two scenarios show Sarah putting the blanket under the bench, and then sitting on the bench, again, scenario three from an outsider's perspective, scenario four from Sarah's perspective. It is predicted that the first two scenarios, since they show contact with the blanket, will be preferred with a reflexive, in particular the scenario from Sarah's perspective. The second two are predicted to be preferred with a pronoun, since there is no contact.

The scenarios thus are predicted to show the perspective effects of outsider (pronoun preferred - sentences (b1 and 2, c1, d1 and 3)) versus own (reflexive (b3 and 4, c2, d2 and 4)) perspective, as well as the less well documented effects of contact or nearness (reflexive (a2, d1 and 2)) versus no contact or distance (pronoun (a1, d2 and 3)) and referring to the whole body (reflexive (b2 and 4)) rather than just part of it (pronoun (b1 and 3)). Table 1 and Table 2 summarise the predicted choices for each sentence. (The label 'contact+', ie 'contact-plus', represents the semantic aspects of contact, use of whole body, nearness and possession/ownership. It is expected that scenarios which are contact+ will use a reflexive, while scenarios which are not contact+ (ie no contact or use of the whole body, etc) will use a pronoun.)

Q	sentence	POV-a	scenario-a	POV-b	scenario-b	anaphor	POV	contact+
1	Brent book	other	back	other	cupboard	him	both	b
2	Cliff beer	other	on chair	own	on chair	himself	b	both
3	Lucien doona	own	head	own	chin	him	neither	b
4	Sarah blanket	other	under bench	other	on bench	herself	neither	b
5	Lucien doona	other	chin	other	head	himself	neither	b
6	Sarah blanket	own	under bench	own	on bench	herself	both	b
7	Lucien doona	other	over head	own	over head	him	а	both
8	Sarah blanket	other	under bench	own	under bench	her	а	both
9	Lucien doona	other	under chin	own	under chin	himself	b	neither
10	Sarah blanket	own	on bench	other	on bench	herself	b	both

Table 1 - Responses to part 1 of questionnaire, with predicted best choices if POV or contact+ is the main determinant of choice of anaphor

Q	scenario	POV	POV	contact+
11	Brent book behind back	other	pron	R
12	Cliff beer on chair	other	pron	R
13	Lucien doona over head	other	pron	R
14	Lucien doona under chin	other	pron	pron
15	Sarah blanket under bench	own	R	pron
16	Sarah blanket on bench	own	R	R
17	Brent book in cupboard	other	pron	pron
18	Cliff beer on chair	own	R	R
19	Lucien doona over head	own	R	R
20	Lucien doona under chin	own	R	pron
21	Sarah blanket under bench	other	pron	pron
22	Sarah blanket on bench	other	pron	R

Table 2 - Responses to part 2 of questionnaire, with predicted best choices if POV or contact+ is the main determinant of choice of anaphor

Results

Table 3 summarises the actual results. The columns 'POV' and 'contact+' show what the predicted response would be if this was the most important factor. While the 'contact+' column appears to have the most matches between predicted and actual responses, this is actually influenced by the types of sentences and scenarios involved, for instance, the Lucien (b) sentences were overwhelmingly preferred with a reflexive. Thus, sheer numbers may not be indicative of actual underlying patterns, so a closer investigation is warranted.

Q	a	b	both	neither	POV	match?	contact+	match?
1	61	5	31	3	both	1⁄2	b	no
2	27	7	63	3	b	no	both	yes
3	25	25	46	3	neither	no	b	1⁄2
4	7	83	8	2	neither	no	b	yes
5	19	36	46	0	neither	no	b	1⁄2
6	3	81	15	0	both	no	b	yes
7	29	7	58	7	а	1⁄2	both	yes
8	31	8	39	22	а	1⁄2	both	yes
9	24	7	63	7	b	no	neither	no
10	10	19	69	2	b	1⁄2	both	yes
Q	a = pron	b = R	both	neither	POV	match?	contact+	match?
11	19	68	12	2	pron	1⁄2	R	yes
12	46	32	19	3	pron	yes	R	1⁄2
13	8	80	12	0	pron	no	R	yes
14	25	56	14	5	pron	1⁄2	pron	1⁄2
15	56	29	5	10	R	1⁄2	pron	yes
16	20	63	12	5	R	yes	R	yes
17	73	10	7	10	pron	yes	pron	yes
18	56	22	17	5	R	1⁄2	R	1⁄2
19	8	73	15	3	R	yes	R	yes
20	31	51	17	2	R	yes	pron	1⁄2
21	66	14	7	14	pron	yes	pron	yes
22	21	63	14	2	pron	1⁄2	R	yes

Table 3 - Responses to all questions, figures are percentages, n=59, match? column indicates whether predictions match actual responses: here represented as 'yes' = most frequent response, '1/2' = second most frequent response, 'no' = least frequent response.

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Initial observation of these results shows that when asked to interpret a given sentence, speakers are very accepting of allowing varying contexts. This tallies with eg Nicol and Swinney (2003) about speakers constructing a reality that changes as the input changes, ie, speakers can deal with 'partial worlds', or can accept multiple interpretations of a given sentence/utterance, which can be updated as more information becomes available. This to me seems the most likely explanation for the fact that 7 of the 10 sentences in this section were judged 'equally good' as representations of both scenarios. Questions 1, 4 and 6 had a preferred scenario, so we will address these in a moment. Also of interest is the fact that 22% of Australian speakers didn't like either of the scenarios given for question 8.

Of the 12 questions in part 2, all bar 1 (question 12) had a sentence for the given scenario which was preferred by over 50% of the informants. Support for the 'other' option ranged from 32% to 8% (questions 13 and 19).

Perspective

Let us start our discussion of the findings by looking at the questions which showed the same scenario, but from different perspectives. These are expected to show the clearest distinction between reflexive and pronoun usage. In part 1 (responses in Table 4), this is questions 2 (Cliff and beer), 7 (Lucien pulling doona over head), 8 (Lucien pulling doona to under chin), 9 (Sarah putting blanket under bench) and 10 (Sarah putting blanket on the bench). In part 2 (responses in Table 5), we can contrast questions 12 & 18 (Cliff and beer), 13 & 19 (Lucien pulling doona over head), 14 & 20 (Lucien pulling doona up under chin), 15 & 21 (Sarah putting blanket under bench) and 16 & 22 (Sarah putting blanket on bench).

q	sentence	POV	Α	POV	В	both	neither
2	him	other	27	own	7	63	3
7	him	other	29	own	7	58	7
8	her	other	31	own	8	39	22
9	himself	other	24	own	7	63	7
10	herself	own	10	other	19	69	2

Table 4 - Responses to part 1 of questionnaire, comparing changes in perspective, bold indicates most frequent response

In fact, Table 4 shows that in every instance the majority (generally around twothirds) of speakers said that both perspectives were possible for each sentence, whether the sentence had a pronoun (2, 7, 8) or a reflexive (9, 10). As well, the next preferred perspective (generally over a quarter of speakers) was consistently an outsider's pointof-view, again regardless of whether the sentence had a pronoun or reflexive. Either this study is not conducive to picking up perspective differences, or the informants do not see the perspective shift as being associated with different types of anaphors. Comments from several speakers suggest the latter.

Q	scenario	POV	a = pron	$\mathbf{b} = \mathbf{R}$	both	neither
12	Cliff, beer	other	46	32	19	3
18		own	56	22	17	5
13	Lucien, doona over head	other	8	80	12	0
19		own	8	73	15	3
14	Lucien, doona under chin	other	25	56	14	5
20		own	31	51	17	2
15	Sarah, blanket under bench	own	56	29	5	10
21		other	66	14	7	14
16	Sarah, blanket on bench	own	20	63	12	5
22		other	21	63	14	2

Table 5 - Responses to part 2 of questionnaire, comparing changes in perspective, bold indicates most frequent response

Again in part 2, we see in Table 5 that the choice of using a reflexive or a pronoun was quite consistent for each scenario, regardless of the camera angle taken. A majority (generally over half) of speakers chose a pronoun for the scenarios of Cliff putting a beer on the arm of the chair he is sitting in, or Sarah putting the blanket underneath the bench she is sitting on, while a majority (from over half to three-quarters) of speakers chose a reflexive to refer to the scenarios of Lucien pulling the doona either over his head or up under his chin, and Sarah putting the blanket on the bench and sitting on it.

Also, while these tables do not show this, people's individual choices varied (eg the average person selected 'both' 4.4 times out of 5 questions in part 1, and 1.5 times out of 5 question pairs in part 2). That is to say, the same people did not select all 'a' or all 'both'.

Other meaning

Another type of meaning was also postulated, namely that of contact or nearness. Let us therefore now investigate pairs of different scenarios taken from the same perspective. In part 1 (responses in Table 6), this is questions 1 (Brent and book), 3 (Lucien pulling doona over head/up under chin - own POV), 4 (Sarah putting blanket on/under bench - other POV), 5 (Lucien and doona - other POV), 6 (Sarah and blanket own POV). In part 2 (responses in Table 7), we can contrast 11 & 17 (Brent book behind back/in cupboard), 13 & 14 (Lucien other POV), 19 & 20 (Lucien own POV), 15 & 16 (Sarah own POV), 21 & 22 (Sarah other POV).

Q	sentence		POV	scenario	a	scenario	b	both	neither
1	him	Brent book	other	back	61	cupboard	5	31	3
3	him	Lucien doona	own	head	25	chin	25	46	3
4	herself	Sarah blanket	other	under bench	7	on bench	83	8	2
5	himself	Lucien doona	other	chin	19	head	36	46	0
6	herself	Sarah blanket	own	under bench	3	on bench	81	15	0

Table 6 - Responses to part 1 of questionnaire, comparing change in contact+, bold
indicates most frequent response

Q	scenario	POV	a = pron	$\mathbf{b} = \mathbf{R}$	both	neither
11	Brent book behind back	other	19	68	12	2
17	Brent book in cupboard		73	10	7	10
13	Lucien doona over head	other	8	80	12	0
14	Lucien doona under chin		25	56	14	5
19	Lucien doona over head	own	8	73	15	3
20	Lucien doona under chin		31	51	17	2
15	Sarah blanket under bench	own	56	29	5	10
16	Sarah blanket on bench		20	63	12	5
21	Sarah blanket under bench	other	66	14	7	14
22	Sarah blanket on bench		21	63	14	2

Table 7 - Responses to part 2 of questionnaire, comparing change in contact+, bold indicates most frequent response

These results in Table 7 show several things, only one of which I believe is conclusive. Firstly, viewed from Lucien's own perspective, a pronoun is equally acceptable to refer to Lucien when the doona is pulled over his head or just under his chin. However, viewed from an outsider's perspective, while nearly half of the informants still thought using a reflexive could mean either scenario, twice as many informants selected the option where the reflexive referred to the doona being pulled all the way over Lucien's head as those who selected the option where the doona was only pulled up to his chin. While this is only a tendency, it does support the conclusion that, while the pronoun is being used to indicate coreference, the reflexive also has the extra meaning of 'whole body'. This is supported by comments from speakers, such as: *B is better because he pulls the doona over more of himself!* and *Again, head as self* (from a different speaker).

Secondly, no matter what the camera angle is, if Sarah puts the blanket under the bench, this is not seen as being under herself. I believe that the 'contact' meaning of the reflexive is important here, as we can contrast the Sarah sentences with the Brent sentence which used a pronoun. Only 61% of informants chose the 'behind back' option for the pronoun to be coreferential, while over 80% of informants for the Sarah/blanket sentence chose the contact scenario to best represent the reflexive sentence. This is the

strongest evidence of contact being important in the meaning of reflexives. Some slight perspective effects are present, in that in sentence 4 which is viewed from an other's perspective, only 8% of informants said the reflexive could be used to represent either scenario, while in question 6, which showed both clips from Sarah's perspective, 15% of informants said the reflexive could be used to represent both scenarios. But this is very tentative, since if we add the 'under bench' figures to the 'both' figures, we get 15% for other perspective, and 18% for own perspective, which is a negligible difference.

Lastly, let us contrast the use of a reflexive or pronoun where the POV is kept the same. Immediately obvious from this table is that there is a clearly preferred option for each scenario. Also immediately obvious is the fact that the reflexive is preferred in the instances where there is contact between the anaphor and its antecedent (11, 13, 14, 19, 20, 16, 22, from half to over three-quarters of informants preferring the contact scenario), while a pronoun is preferred when there is no contact (17, 15, 21, again from half to three-quarters of informants preferring the no contact scenario). Within the Lucien/doona sentences, the reflexive is more preferred when the action is pulling the doona over his head (a rate of approval of around three-quarters of all informants), rather than just up under his chin (a rate of approval of only one half of informants). This indicates support for the idea that the reflexive refers to the whole body (see comments from informants above).

Finally, it is also worth noting that speakers did not choose the predicted reflexive and pronoun scenarios. This is most likely due to the fact that I had anticipated perspective effects being far stronger than the data showed (probably through perspective being the only non-syntactic linguistic feature discussed in the literature). In fact, it seems that the semantic content of reflexives, namely contact, closeness, and the use/entailment of the whole body rather than just part of the body, seems to be more important than perspective in choosing a pronoun or a reflexive for a given scenario for Australian speakers. Comments from speakers which support this idea include: *I don't see any difference (apart from the perspective - but that doesn't seem to affect the meaning.)*, *Same video different angle so I don't understand how one can be better* and *these both show the same* [scenario, but different POVs] *and therefore without taking into account previous images - both are equally as good*. This may be due to Australians being cognisant of being viewers, as one speaker stated: *im guessing that you are doing from the first and third person perspective but since we are viewing it anyway- its already from a third person perspective by definition isnt it?*

The main finding from this data set, then, is that 'contact' seems to be a more important feature than perspective. This aspect of reflexive meaning would appear to be a profitable angle for future and more rigorous investigation than is possible here.

Complements versus adjuncts

There does not seem to be any difference between sentences with syntactic complements versus adjuncts. Part 2 had three scenarios where a reflexive seemed more likely, and three scenarios where a pronoun seemed more likely. In actual fact, speakers chose reflexives in five cases and a pronoun in only one case as their most preferred way of phrasing the given scenario. Complements in part 2 had likewise 3 predicted reflexives and 3 predicted pronouns. Speakers chose 2 reflexives, 3 pronouns, and were evenly split on the sixth.

Responses from informants

Only one speaker was explicit about perspective affecting her decisions, but other speakers gave indications of it: *This POV of the camera really makes a difference to the answers. I wish I could explain why, I would've gone with B* [reflexive to describe Lucien pulling doona over head - other POV] *if the sentence had a comma and continued on with another action...* and *In a lot of these it really depends on the rest of the "story"* [as to whether pronoun or reflexive best].

Several speakers commented that the reflexive could only be used when there was contact between the location and the antecedent, eg using a reflexive pronoun, for me, in this case, only feels right if it is very directly under herself and not under anything else! interesting!, Himself/herself I would use when it directly affects the person E.g. the book being put behind the man touching himself and the chair I would use "himself". When the object does not directly touch the speaker (e.g. the book being put in the cupboard) I would use "him". Likewise for the other examples... and the area referred to is directly related to the person.. otherwise the bench/seat would also be mentioned. Comments which support the 'whole body' meaning of reflexives include: B is better because he pulls the doona over more of himself!, No head [Lucien, doona under chin, own POV = use pronoun, not reflexive].

Only one speaker commented on the emphatic use of the reflexive as a disambiguation tool: In a lot of these examples I would only use – self if there was an alternative – "Cliff put the beer beside himself, not near Brent." This is also surprising, given that the emphatic use of reflexives constitutes a large field of research in anaphora.

Analysis of these responses shows two main points of interest. Firstly, while there was not 100% agreement for any category for any question, there was still a clear majority (normally half to three-quarters of speakers) in favour of only one choice for nearly every question. And secondly, speakers often apologised for contradicting themselves when presented with the same sentence/clip choice a second time. This shows that the pairing options – the set of contrasts conceptually available to the speaker – strongly influences a speaker's decision to use a reflexive or a pronoun. This second observation in particular needs to be taken into account for a more detailed investigation of this matter.

Finally, I would like to talk about the methodology used in this task. While considerable effort went into making the task clear and short, I still received quite a few comments on how difficult this task was, including several comments from speakers apologising for a lack of consistency:

Dammit, my English has gone to the dogs. As I went through each question, I kept changing my mind on previous ones! Damn context! Damn POV!

Very testing use of reflexives throughout. I suspect I wasn't consistent though.

i really just dont know what i think anymore, my world has come tumbling down

I don't think I answered very consistently, but perhaps that's the point of the study.

The fact that speakers commented on their inconsistency, yet as a group produced responses with clear preferences, suggests that while speakers may not be conscious of the difference/s between reflexives and pronouns, such differences do indeed exist. Further experiments are needed to identify this subtle, yet obviously present, distinction. A tactic such as including more contrasts within the one question for speakers to consider may highlight the semantic differences more clearly for the speakers. Including more contextual information would probably also be beneficial, although the use of videos does provide a good contextualising source for most speakers for the scenarios used here.

Conclusion: Contrasting reflexive versus pronominal anaphors in Australian English

There is a clear difference between the meaning carried by a pronoun and that of a reflexive. As well as both being anaphors in the general sense of the word, and thus being dependent upon some antecedent to achieve real-world reference, the reflexive also carries with it some sense of contact, nearness and 'whole body'.

Anaphora is typically treated as a syntactic problem, even though logically it is about reference and therefore semantics. Of the many approaches to accounting for reflexivisation in the syntactic literature, one paper stands out as being successful – Reinhart and Reuland (1993). Intriguingly (or rather, logically), the main reason for their success is that their definition of reflexivity is contingent upon the semantics of the predicate involved in the reflexive construction, which then dictates whether the (standard theory syntactic) binding conditions come into play, and if so, in what way.

In the example sentences (a-d) tested in this study, although both the reflexive and the pronoun produce acceptable sentences of Australian English, they are not semantically equivalent. When the reflexive is used, there is a sense that the whole person is somehow involved, and contact between the person and the object is also involved. This is not the case when a pronoun is used. In (a), use of the pronoun could mean that the book was ten feet away behind *Brent* somewhere, whereas use of the reflexive means that it is *Brent*'s body that is hiding *the book* from sight. Use of a reflexive here asserts physical contact, or at least proximity, between the antecedent of the reflexive and the direct object. (b) with a reflexive means that *Lucien* hid the whole of himself under *the doona*, whereas the use of the pronoun implies only that some part of himself was covered by *the doona* after he had pulled on it. The use of the reflexive in (c) implies that *Cliff* was maybe touching *the beer*, or that he was at least being somewhat possessive of it. Use of the pronoun does not imply any type of possession. Finally, in (d), the version with the pronoun does not imply any sort of contact between *Sarah* and *the blanket*. *Sarah* could be sitting on a chest, into which she put *the blanket*. On the other hand, when the reflexive is used, it implies that she probably spread it out on the ground beneath her and sat directly upon it.

These findings are important, as they provide preliminary empirical evidence that an alternative view is needed to the standard assumption in the syntactic literature that all anaphors merely indicate coreference.

Use of the reflexive in Australian English appears to entail some sort of contact or use of the whole body, whereas a pronoun can be seen as merely some form of expressing coindexation when a reflexive is not acceptable. That is to say that the reflexive is more concretely associated with the referent as an entire entity, while the pronoun need not be entirely coreferential. Perspective may play far less of a role in Australian English use of anaphors than meanings of 'contact' and 'whole body'.

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