

# Language, Culture, and Group Membership: An Investigation Into the Social Effects of Colloquial Australian English

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## Abstract

Languages are strong markers of social identity. Multiple features of language and speech, from accent to lexis to grammatical constructions, mark speakers as members of specific cultural groups. In the current article, we present two confederate-scripted studies that investigated the social effects of the Australian hypocoristic use (e.g., *uggie*, *uni*, *derro*)—a lexical category emblematic of Australian culture. Participants took turns with a confederate directing each other through locations on a map. In their directions, the confederate used either hypocoristic (e.g., *uni*) or standard forms (e.g., *university*). The confederate’s cultural group membership and member prototypicality were manipulated by ethnic background and accent: In a *highly prototypical in-group* condition, the confederate had an Anglo-Celtic background and Australian English (AusE) accent; in a *low prototypical in-group* condition, the confederate had an Asian background and AusE accent; and in the *out-group* condition, the confederate had an Asian background and non-AusE accent. Hypocoristic use resulted in significantly higher participant-rated perceived common ground with the confederate when the confederate was an in-group but not an out-group member, which in some instances was moderated by in-group identification. The results suggest that like accents, culturally significant lexical categories function as markers of in-group identity, which influence perceived social closeness during interaction.

## Keywords

Australian English, hypocoristics, accommodation

Languages are strong markers of social identity. During interaction, features of speech associated with accents immediately reveal an individual’s linguistic and cultural origins. Even before infants can produce speech, they exhibit a preference for speakers of their own language, an effect that trumps other salient cues to category membership (Kinzler, Dupoux, & Spelke, 2007;

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Kinzler, Shutts, DeJesus, & Spelke, 2009). Past research investigating the social effects of accent and dialect reveals that social judgments of speakers are determined by a complex interplay between an individual's cultural identity and the dynamics of intergroup relations (e.g., Giles, Coupland, & Coupland, 1991; Giles & Rakić, 2014). Although there has been a strong focus on accent, languages contain a host of culturally specific lexical items that are equally emblematic of their cultural origins, which are also likely to have important social and cultural functions (e.g., situationally defining one's attitudes, relationships, and norms and maintaining/transmitting such understandings across members of the cultural group). In the current article, we report on two studies that investigated the social effects of a particularly prominent aspect of Australian English (AusE)—*hypocoristics*.

## Australian Hypocoristics

Australian hypocoristics are colloquial forms of standard English words that are produced following a variety of morphological processes. They have the same denotation, and frequently share some of the same form as the standard word that they denote but differ from the standard form in their formality and sometimes in their connotation. Most are characterized by the fact that they clip the base form and add a morpheme, usually *-o*, *-ie/y*, *-a/er*, or the more recently emerged *-s*, as shown in (1) to (4). Zero forms, where no morpheme is attached to the clipped form, are also common (5).

1. service station → *servo*
2. cigarette → *ciggie*
3. sandwich → *sanga*
4. mobile phone → *mobes*
5. university → *uni*

Hypocoristics exist in many different dialects of English, but they are particularly frequent in AusE. For instance, Sussex (2004) estimates that these forms make up approximately 4% of the types of Australian lexis. In an elicitation study, Kidd, Kemp, and Quinn (2011) asked 115 speakers of AusE to generate as many hypocoristic forms as they could in 10 min and reported more than 1,500 different forms. The category of hypocoristics is arguably the source of many of the innovations in AusE, as most forms have appeared in the language in the 20th century (Kidd et al., 2011; Moore, 2008). It is not uncommon to hear hypocoristics across a range of contexts; they are frequently used in everyday speech but are also used in more formal contexts, such as by politicians and by newsreaders. Some hypocoristic forms are now used more frequently than their corresponding standard forms (e.g., *uni* → *university*, *Salvos* → *Salvation Army*), attesting to their cultural prominence.

The pervasive use of hypocoristic forms in AusE has generally been interpreted to reflect the core traditional Australian cultural ideals of informality, mateship, and egalitarianism. Several linguists have hypothesized about the semantics of the different morpheme types (e.g., McAndrew, 1992; Wierzbicka, 1986), and there is a general (though empirically unconfirmed) agreement that the use of hypocoristics functions to promote greater social closeness between speakers (Kidd et al., 2011). That is, commensurate with their status as colloquial forms, hypocoristics acknowledge a shared cultural history between speakers and as such serve as a marker of in-group identity. In the current study, we present two experiments that explore the social effects of hypocoristic use.

## Social Identity and Language Use

The idea that Australian hypocoristics serve as markers of in-group identity is consistent with communication accommodation theory (CAT, Giles et al., 1991; Giles & Johnson, 1981; Hogg,

Joyce, & Abrams, 1984). CAT is a theory of intergroup and interpersonal communication based on three assumptions (see Gallois, Ogay, & Giles, 2005). First, communicative interactions are embedded in a sociohistorical context (e.g., the history of relations between groups within a specific sociocultural context). Second, communication concerns *both* the exchange of referential meaning and the negotiation of personal and social identities. That is, communication is not only concerned with the functional exchange of meaning but also provides a system within which speakers can convey social distance between themselves. Finally, speakers achieve the referential and social functions of communication by *accommodating* their communicative behavior to their interlocutor's perceived individual and group characteristics.

Accommodation serves both cognitive and social functions. In cognitive terms, accommodating to a speaker eases real-time production difficulty (Garrod & Pickering, 2014; Pickering & Garrod, 2004). In social terms, CAT argues that accommodation allows speakers to regulate social distance with interlocutors. Speakers *converge* to appear more alike, and speakers maintain or *diverge* to differentiate themselves. Accommodation is well attested and has been indexed using a large array of variables (e.g., speaking rate, amplitude contour, vocal intensity; see Giles et al., 1991), with many demonstrations of convergence and divergence in sociolinguistic studies of interaction. For instance, Coupland (1980) reported that the speech patterns of a Cardiff-based travel agent changed according to the person with whom she interacted, the communicative medium (in person, telephone), and the conversational topic. Bourhis and Giles (1977) demonstrated that speakers of Welsh English converged or diverged with a speaker of English Received Pronunciation (i.e., the prestige variety of English in Great Britain) who had made derisive comments about Welsh depending on their investment in Welsh culture. Those who identified with Welsh culture, as indexed by the fact that they were taking Welsh language and culture classes, diverged. In contrast, a group who were learning Welsh for business purposes converged.

Babel (2010) conducted a similar but more controlled study with speakers of New Zealand English. The participants completed a speech-shadowing task in which they were required to repeat word lists spoken by a speaker of AusE. Half the participants were told that the AusE speaker had a negative attitude toward New Zealand; the other half were told that the speaker had a positive attitude. The participants also completed an Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998), which provided a measure of the degree to which they had a pro-New Zealand versus pro-Australia bias. The AusE speaker's attitude toward New Zealand did not affect accommodation; however, participants with a pro-Australia bias, as measured by the Implicit Association Test, were more likely to converge.

Consistent with CAT, these studies demonstrate that accommodation in interaction is a process of negotiating linguistic as well as social meaning. This is likely to be one example of how (unconscious) mimicry indexes affiliation. For instance, in studies investigating the so-called "chameleon effect," Chartrand and Bargh (1999) reported that participants whose nonverbal behavior was mimicked by a confederate stated that they liked the confederate more than participants who were not mimicked. The effect appears bidirectional, as increases in affiliation also predict greater mimicry (Lakin, Jefferis, Cheng, & Chartrand, 2003). These studies therefore indicate that being mimicked can lead to increases in affiliation and that greater existing affiliation leads to greater mimicry. Such findings are consistent with CAT. However, some other studies have shown that the simple act of imitation can also increase affiliation. For instance, Stel, Van Baaren, and Vonk (2008) asked participants to watch a video of a person describing a charitable organization. Half the participants were asked to mimic the person's facial expression, and the other half were asked not to do so. The participants then completed a questionnaire and were given the opportunity to donate money to the charity. The participants in the mimicry condition donated more money than participants in the nonmimicry condition, suggesting a greater pro-social attitude toward the charity. Similarly, in the linguistic domain, Adank, Stewart, Connell, and Wood (2013) asked speakers of British English either to imitate the accent of a speaker of

Glaswegian English (Scotland) or to repeat what another speaker of Glaswegian English had said in their own accent. The results showed that participants rated the speaker whose accent they had imitated as higher on social attractiveness than the speaker they did not imitate.

Overall, these data suggest a bidirectional relationship between accommodation and perceived social distance. The observation that existing positive relationships between speakers increase accommodation is a basic assumption of CAT; however, the role that accommodation, and, specifically, convergence, may have in *building* positive social relationships has been less explored. In the current study, we test this possibility using AusE hypocoristics as our target, investigating whether participants' choice to converge on the use of either a hypocoristic or standard form (e.g., *uni* vs. *university*) influences their judgments of social closeness with an interlocutor.

Word choice (e.g., *Jack Russell* instead of *dog*) assumes a level of shared knowledge between speaker and listener, the success of which indicates an alignment of mental states (sometimes referred to as *lexical entrainment*, the outcome of which is a *conceptual pact*, see Brennan & Clark, 1996). In cases where word choice involves a choice between different registers (e.g., *uni* vs. *university*, *flood* vs. *inundation*, *construct* vs. *build*), the specific choice is additionally diagnostic of cultural assumptions the speaker makes about her or his relationship with the listener (e.g., social status, relationship to the speaker). Word choice also affects a listener's impressions and evaluations of a speaker. For instance, English has a large number of near-synonyms, many of which are of Latinate and Germanic origin (e.g., *inundation/flood*). Latinate terms are typically higher in register and are therefore more formal than Germanic terms (Levin, Long, & Shaffer, 1981; Levin & Novak, 1991). Following social psychological research on accent, where speakers with nonstandard accents (e.g., Northern British English) tend to be rated higher on measures of solidarity than speakers of standard accents (e.g., Received Pronunciation in British English), who tend to be rated higher on measures of competence (e.g., intelligence), Levin, Giles, and Garrett (1994) measured participants' ratings of speakers who used a large number of either Latinate or Germanic words in a short passage. Their results were similar to the accent research: The speakers who used mostly Latinate words were rated as more formal, and more likely to use longer and fancier words in comparison with speakers who used more Germanic words, whose speech was rated as simpler and more colloquial. As in the past accent research, the speakers who used more Latinate terms were rated higher on the competence dimension (e.g., more intelligent, dominant, formal, ambitious), whereas the speakers who used more Germanic terms were rated high on the solidarity dimension (e.g., more sincere, trustworthy, sympathetic). A second study that fully crossed accent (standard vs. nonstandard) and lexical formality (Latinate vs. Germanic terms) showed that these results largely replicated, although lexical formality led to fewer differences on personality characteristics. Interestingly, there was no interaction between accent and lexical formality, suggesting that each variable exerted independent effects on participant judgments.

## The Current Research

In the current article, we investigated the social effects of Australian hypocoristic use. Within the framework of CAT, we explored the following research questions:

**Research Question 1:** Does the use of hypocoristics as opposed to standard forms in conversational interaction increase perceived social closeness in speakers of AusE?

**Research Question 2:** Following Adank et al. (2013), does the degree to which a speaker converges in the use of hypocoristic forms predict social closeness?

**Research Question 3:** Does the prototypicality of the speaker as a member of the cultural group (i.e., Australian) affect the influence hypocoristic use has on the listener's perceived social closeness and convergence in the use of hypocoristic forms?

Study 1 addresses the first and second research questions, and Study 2 addresses the third.

## Study 1

In Study 1, we conducted a confederate-scripted study in which the confederate and participant took turns directing each other to locations on a map. In the task, the confederate used either hypocoristic or standard forms of words throughout their journey descriptions. As hypocoristic forms are emblematic of Australian culture, we derived the following prediction from CAT. First, we predicted that the use of hypocoristic forms by the confederate would result in greater perceived participant-rated social closeness between the pair, as measured by a posterior questionnaire (Hypothesis 1). We call this variable *perceived common ground*. Second, following Adank et al. (2013), we hypothesized that the degree to which a participant converged with the confederate in the use of hypocoristics would predict their ratings of perceived common ground (Hypothesis 2). CAT predicts that an individual will respond to specific communication styles in different ways depending on their in-group identification (Hornsey & Gallois, 1998). Therefore, we measured the degree to which our participants identified with Australian culture and tested whether it moderated the relationship between hypocoristic use and participant-rated perceived common ground. Finally, we also manipulated the gender of the confederate, for the following reasons. First, McAndrew (1992) suggested that hypocoristics are more likely to be used by males than females (although Kidd et al., 2011, found no gender differences in the ability to generate examples). Second, Pardo (2006) found perceived gender differences in speech accommodation in an interactive task. Therefore, although we did not explicitly hypothesize that there would be differences in convergence and perceived common ground due to confederate gender, it was important to check whether any such effects in fact exist.

### Participants

Eighty-four (64 females) first-year undergraduate students from the University of Tasmania participated for course credit. The mean age of the group was 22.6 years ( $SD = 7.1$  years, range = 17–46 years). Forty-seven (34 females) participants interacted with a female confederate ( $M_{\text{age}} = 23.1$  years,  $SD = 7.7$  years); 37 (31 females) interacted with a male confederate ( $M_{\text{age}} = 21.9$  years,  $SD = 6.3$  years). All participants self-identified as native speakers of AusE (97.6% Australian born). There were two confederates, one female and one male, who were comparable in age (female = 30 years, male = 33 years) and in educational background. Both were of Anglo-Celtic descent and spoke with a standard South-Eastern Australian accent.

### Design

Study 1 had a 2 (condition: standard vs. hypocoristic)  $\times$  2 (confederate gender: male vs. female) between-participants factorial design. The dependent variables were as follows: (a) the number of hypocoristic forms used by participants, a measure we call *convergence*, and (b) a measure of participants' self-rated *perceived common ground* with the confederate, as measured by a posterior questionnaire. The participants' self-rated Australian identity (Australian ID) was also measured to determine whether the anticipated effect of hypocoristic use on perceived common ground was moderated by the participants' degree of in-group identification.

### Materials

**Map.** Two A2-size maps of the greater Hobart area (the city in which the university campus was located) were used in the map task (see Figure 1 for experimental setup). The map contained prominent locations and landmarks, characters, and objects. Thirty-two of these served as target words because they could be described either using a standard English form (e.g., *McDonalds*, *casino*, *motorbike rider*, *ugg boots*) or using an attested Australian hypocoristic (e.g., *Maccas*,



**Figure 1.** Experimental setup for map task.

*the Caz, bikie, uggies*). The target words were selected from a database of frequently used Australian hypocoristics collected in 2009 (Kidd et al., 2011). These target words were illustrated by a picture on the map and included in two scripts consisting of four journeys each.

**Scripts.** The confederates directed participants through the map using a script. Two versions of the script were created, each containing the same four journeys in a different order. Each four-journey script had a hypocoristic and a standard version. Hypocoristic use was manipulated between participants; therefore, the confederates used only one script with each participant (i.e., either the hypocoristic or standard version). The scripts contained an average of 8.75 target words each. Each script described a unique journey through the map; the two versions differed only in the presence of the target words in their standard or hypocoristic form. The following is an example of one of the scripts, which contains the hypocoristic target words in the text and the standard form of the target words in parentheses (see the appendix for the remaining three scripted journeys for both conditions).

Start at **uni (university)**. You should see Lazenby's and some **uni (university)** students working on their **lappies (laptops)** on the grass. Take a **righty (right-hand turn)** out of the **uni (university)** onto Regent St. Stop at the pedestrian crossing for that student with the **dreads (dreadlocks)**. Then keep travelling along Regent St. till you get to the lights. Take a **righty (right-hand turn)** onto King St. Go along King St., and stop again at the lights. Turn right onto Sandy Bay Rd. Go down Sandy Bay Rd. You'll pass a **Maccas (MacDonalds)** on your left, and then you'll see that **Merc (Mercedes)**, also on the left. Keep going, and you'll pass **the Feed (Chickenfeed)** on the right. Go along past the Sandy Bay waterfront, and you'll pass the Caltex **servo (service station)** on the left before you get to the **Caz (Casino)**.

The four scripted journeys in each script were interleaved into a list of eight journeys that the confederate and participant used during the experiment. Specifically, they were each handed a list of journeys and were instructed that they would be required to take turns directing each other through the journeys. The confederate always began the experiment, which was presented to the participant as a random decision made by the experimenter. The confederate therefore had scripts

for journeys 1, 3, 5, and 7, whereas the participant was required to direct the confederate through journeys 2, 4, 6, and 8 (and was unaware that the confederate's journeys were scripted). The second version of the script contained the same scripted journeys, but the journeys were in a different order.

**Posterior questionnaire.** A short posterior questionnaire was used to measure (a) participants' evaluation of the speaker, (b) self-rated Australian ID, and (c) demographic information. Four items required the participant to rate the speaker on perceived common ground on a 10-point Likert-type scale: (a) "How similar or different do you think you and the other person are?" (b) "How much *general knowledge* (what you know about people and the world generally) do you think *you and the other person* share?" (c) "How much *cultural knowledge* (what you know about living in Australia) do you think *you and the other person* might share?" and (d) "If you met this person outside this study, how well do you think you would get along?" Participants' responses on these four questions across our entire sample (Studies 1 and 2,  $N = 143$ ) were entered into a factor analysis, yielding one factor with good internal consistency (Cronbach's  $\alpha = .73$ ). Therefore, a mean score was computed from these four questions. We called this new dependent measure *perceived common ground*.

To measure perceived Australian ID, participants rated seven statements about being Australian (e.g., *Being Australian is important to me*) on a 5-point Likert-type scale where 1 = *strongly disagree*, 3 = *neutral or undecided*, and 5 = *strongly agree* (see E. S. Kashima & Suppakitkumjorn, 2004, Appendix B). Across the entire sample, the scale had very good internal consistency (Cronbach's  $\alpha = .87$ ). We therefore used the mean of these seven items to index "Australian identity."

## Procedure

Prior to testing, the confederates were thoroughly briefed on the testing procedure and were given practice in delivering the scripts so that they sounded natural to a naïve listener. The testing procedure went as follows. Prior to testing, the confederate and participant were introduced as fellow students in the foyer of the Psychology Building, and were then led to the testing room. The confederate and participant were seated opposite one another, each looking at their own version of the map. The size and placement of the map (located vertically in front of each person) meant that the confederate and participant could not see each other, which ensured that any differences across conditions could not be attributed to nonverbal communication. Participants were randomly allocated to the two between-participants conditions: (a) confederate gender (male vs. female) and (b) target word condition (standard vs. hypocoristic).

Instruction sheets describing the basic details of the map task were provided to the participant and confederate. This included the eight journeys that the two were asked to describe to each other (e.g., from North Hobart to Mt. Wellington). The experimenter told the participant and the confederate that they would take turns directing each other through the map on the specified journeys. The confederate was asked to start with the first journey at the top of the list, and the confederate and participants worked through the eight journeys until they finished. In the event that participants requested clarification from the confederate, the confederate answered the participant's question and recommenced from the beginning of the sentence in which they were interrupted. The test sessions were recorded using a small video recorder. The experimenter remained in the room during the testing and recorded any hypocoristics that participants used during their journey descriptions. The number of hypocoristics used by the participant served as the measure of convergence. At the conclusion of the task, the researcher led the confederate out of the room under the guise of providing privacy for each participant to complete the questionnaires. Participants then completed the posterior questionnaire. Sessions were approximately 30 min in duration. Participants were fully debriefed after the completion of testing.

**Table 1.** Mean Number of Hypocoristics (and Standard Deviations) Produced by Participants by Confederate Gender (Male vs. Female) and Experimental Condition (Hypocoristic vs. Standard).

	Male	Female	Total
Hypocoristic	4.75 (3.53)	3.88 (2.11)	4.32
Standard	0.79 (1.08)	0.37 (0.77)	0.58
Total	2.6	2.16	2.45

Note.  $n = 84$ .

## Results

**Convergence.** We first determined whether participants in the hypocoristic condition converged with the confederates' use of these forms and whether this varied as a function of confederate gender. Table 1 shows the participants' mean use of hypocoristic forms (and standard deviation) by experimental condition (standard vs. hypocoristic target forms) and confederate gender.

Table 1 shows that the participants produced more hypocoristic forms in the hypocoristic condition than in the standard word condition, which did not appear to vary with confederate gender. The dependent measure was not normally distributed, and efforts to transform it proved futile. We therefore modeled the data using generalized linear models, which, unlike the general linear model (e.g., ANOVA), do not have the stringent assumptions of normality, linearity, and constant variance (Norusis, 2008). The data were first transformed so they did not contain 0 values, and a gamma log-link function was specified because the data were positively skewed. The variables of experimental condition (standard vs. hypocoristic) and confederate gender (male vs. female) were entered as fixed effects in a fully factorial design. The results showed that experimental condition significantly influenced the use of hypocoristic forms— $\chi^2(1) = 111.23, p < .001$ —with significantly more hypocoristic forms produced in the hypocoristic condition,  $\beta = .63, SE(\beta) = .07, p < .001$ . In contrast, the inclusion of confederate gender did not influence the use of hypocoristic forms— $\chi^2(1) = 2.6, p = .11$ —and the Condition  $\times$  Confederate Gender interaction was not significant,  $\chi^2(1) = 0.26, p = .61$ . The analyses suggest that the confederate use of hypocoristic forms leads to greater use of these forms by the participants. This finding suggests that the participants converged with the confederate in hypocoristic use, a process which was not significantly influenced by confederate gender. An additional analysis by participant gender revealed no significant effects for this variable. It should be noted, however, that there were very few males in comparison with females in each cell, and so this analysis is likely to have been underpowered.

**Perceived common ground.** We next analyzed whether the participants' ratings of perceived common ground with the confederate differed according to condition and confederate gender. Table 2 depicts the means (and standard deviations) for participants' perceived common ground ratings of the confederate by experimental condition and confederate gender.

Table 2 shows that the participants' ratings of perceived common ground with the confederate did not appear to differ by experimental condition. The female confederate was rated slightly higher overall than was the male confederate. The dependent variable was normally distributed. A 2 (condition: standard vs. hypocoristic)  $\times$  2 (confederate gender: males vs. female) ANOVA showed that neither variable significantly influenced ratings of perceived common ground—condition:  $F(1, 80) = .01, p = .93, \text{partial } \eta^2 < .001$ ; confederate gender:  $F(1, 80) = 2.97, p = .12, \text{partial } \eta^2 = .03$ —nor did the two variables interact,  $F(1, 80) = .35, p = .56, \text{partial } \eta^2 = .004$ . Once again, a separate analysis including participant gender as an independent variable yielded no significant effects.



**Table 2.** Mean Participant-Rated Perceived Common Ground Score by Confederate Gender (Male vs. Female) and Experimental Condition (Hypocoristic vs. Standard).

	Male	Female	Total
Hypocoristic	6.77 (1.15)	7.01 (1.08)	6.91
Standard	6.60 (0.93)	7.13 (1.19)	6.89
Total	6.68	7.07	6.87

Note.  $n = 84$ .

We next investigated whether the degree to which participants converged with the confederate in their use of hypocoristics predicted perceived common ground and whether this was affected by the participants' identification with Australian culture. We used the number of hypocoristics used (i.e., convergence) and Australian ID to predict perceived common ground.<sup>1</sup> This analysis only included participants in the hypocoristic condition. This was because any hypocoristic forms used by the participants in the standard condition were likely to have been used due to their high frequency (e.g., *uni*) and hence are likely to function more like standard forms. Alternatively, individual participants themselves may have been inclined to use these hypocoristic forms, without converging with the confederate.

The participants' production of hypocoristic forms was mildly positively skewed (Shapiro–Wilks = .94,  $df = 1$ ,  $p = .042$ ). The data were successfully normalized using a  $\sqrt{x+1}$  transformation (Shapiro–Wilks = .98,  $df = 1$ ,  $p = .63$ ). Australian ID had substantial negative skewness (Shapiro–Wilks = .87,  $df = 1$ ,  $p < .001$ ), which was corrected using a  $\log_{10}(k-x)$  transformation (Shapiro–Wilks = .97,  $df = 1$ ,  $p = .36$ ). The dependent measure was normally distributed. The data were modeled using the general linear model. A fully factorial model was first built (i.e., main effects and their interaction), but a simpler model with just the main effects of participant hypocoristic use and Australian ID was a better fit to the data. The results showed that both variables positively and significantly predicted perceived common ground—hypocoristic use:  $F(1, 37) = 4.64$ ,  $p = .038$ , partial  $\eta^2 = .11$ ; Australian ID:  $F(1, 37) = 7.54$ ,  $p = .009$ , partial  $\eta^2 = .17$ . That is, the more a participant converged with the confederate, as indexed by higher use of hypocoristics, the higher their self-rated perceived common ground with the confederate. Similarly, the higher a participant's self-rated identification with Australia, the higher their self-rated perceived common ground with the confederate. Interestingly, these two variables (hypocoristic use and Australian ID) had independent effects on the development of perceived common ground, and the two variables were not correlated ( $r = .02$ ,  $p = .93$ ).

## Discussion

In Study 1, we found that (a) speakers of AusE converge with unfamiliar speakers who use hypocoristics, a tendency that does not appear to be related to the gender of the person using them, and (b) a speaker's use of hypocoristics does not automatically increase perceived common ground with an interlocutor, but perceived common ground is related to the degree to which an interlocutor converges with a speaker and the degree to which they identify with Australian culture. The first result is consistent with past research on lexical choice in dialogue (e.g., Brennan & Clark, 1996). Specifically, our participants spontaneously made conceptual pacts using hypocoristic forms when the confederate introduced these forms in their journey descriptions. The second result is consistent with CAT and with speech accommodation and linguistically focused social categorization research (e.g., Adank et al., 2013; Babel, 2010; Bourhis & Giles, 1977; Hogg et al., 1984; Levin et al., 1994). Therefore, although we did not find support for our prediction that confederate hypocoristic use *in general* would increase participant-rated perceived common

ground (Hypothesis 1), our prediction that degree of convergence would predict perceived common ground (Hypothesis 2) was supported. Furthermore, the finding that the strength of participants' Australian ID predicted perceived common ground in the hypocoristic condition suggests that hypocoristic use may have primed culturally specific scripts in speakers, which, in turn, may have increased perceived common ground in participants with strong cultural identification.<sup>2</sup> This result is therefore consistent with CAT's prediction that individuals react differently to speakers depending on their degree of in-group identification.

Overall, the data support the argument that the use of nonstandard lexical forms such as AusE hypocoristics can increase social closeness between speakers during interaction in dialogue. In Study 2, we further investigated the status of hypocoristic as markers of in-group identity.

## Study 2

Australia is a highly multicultural society. Twenty-seven percent of the population was born overseas (Australian Bureau of Statistics, 2011), with an even greater number being able to trace their ancestry to other countries and cultures within the last few generations. As such, although Australia is a former British colony and the majority of the population is Anglo-Celtic, there are significant immigrant communities from Europe, Asia, Africa, and South America. Therefore, visual cues such as skin and eye color are imperfect predictors of in-group membership. Such conditions are common the world over and may have characterized early human history. Kinzler et al. (2009) have suggested that over human history perceivable linguistic differences between groups may have been more reliable cues to social categorization than visual cues such as bodily features, where in the absence of standardization, languages were likely to have varied over small geographical space (e.g., as in dialect chains in modern Europe, such as in modern-day Italy or the Low Countries of Western Europe). Coupled with the fact that early humans did not look as different as in modern times (Cosmides, Tooby, & Kurzban, 2003), linguistic cues such as accent and lexical choice may be better markers of in-group status than other physical cues.

This idea has empirical support. Kinzler et al. (2009) showed that 5-year-old children's social preferences are guided by a preference for accent over race. Rakić, Steffens, and Mummendey (2011) reported a similar effect in adults. The data are consistent with *ethnolinguistic identity theory* (EIT, Giles, Bourhis, & Taylor, 1977; Giles & Coupland, 1991; Giles & Rakić, 2014), an offshoot of CAT, which holds that language is the one of the most reliable and powerful cues to social categorization and ethnic identity. In Study 2, we investigated whether AusE hypocoristics serve as markers of cultural group membership by manipulating the linguistic status of our confederate. The confederate was of East Asian descent and on the basis of looks alone could not with any certainty be identified as either an in-group or out-group member. Therefore, relative to Study 1, the confederate had lower prototypicality as an in-group member based on extralinguistic cues (where the confederates in Study 1 could be considered prototypical; Turner, 1986). The confederate was bicultural and interacted with participants using either an AusE accent or foreign-accented English. The use of an AusE accent should therefore identify her as an in-group member, and the use of hypocoristics should indicate shared cultural knowledge.

Although CAT predicts that convergence is associated with positive social outcomes in general, it also acknowledges that sociohistorical and situational factors influence how convergence is evaluated. For instance, in intergroup contexts, convergence can be evaluated negatively if a speaker violates cultural norms or intrudes on important cultural markers of an out-group (Ball, Giles, Byrne, & Berechree, 1984; Hornsey & Gallois, 1998; Platt & Weber, 1984). Therefore, on the assumption that hypocoristic use represents an in-group linguistic behavior, we predicted that their use by out-group members would be rated more negatively. Therefore, we hypothesized that

**Table 3.** Mean Number of Hypocoristics (and Standard Deviations) Produced by Participants by Confederate Accent (AusE vs. Non-AusE) and Experimental Condition (Hypocoristic vs. Standard).

	AusE	Non-AusE	Total
Hypocoristic	2.30 (1.83)	2.71 (1.90)	2.49
Standard	0.73 (1.34)	0.20 (0.41)	0.47
Total	1.50	1.41	1.48

Note.  $n = 59$ .

when the confederate used hypocoristics in an AusE accent, the participants would (a) converge to greater extent (Hypothesis 1) and (b) rate the confederate higher on perceived common ground (Hypothesis 2). Finally, we predicted that the degree to which participants converged with the confederate would positively predict common ground (Hypothesis 3). As with Study 1, for each of our analyses, we investigated the moderating influence of Australian ID.

## Method

**Participants.** Fifty-nine university students (38 females) recruited from a volunteer participant registry at La Trobe University, Melbourne, participated. The mean age of the participants was 21.8 years ( $SD = 3.2$  years, range = 18-29 years). All identified as native speakers of AusE (88% Australian born). A female, ethnically Asian speaker of AusE served as the confederate (aged 26 years). The confederate had Japanese parents but grew up in Melbourne and spoke with a native AusE accent (but could produce a realistic non-AusE accent). Only a female confederate was used because Study 1 had shown no effect of confederate gender on any dependent measures.

**Design.** Study 2 had a 2 (condition: standard vs. hypocoristic)  $\times$  2 (confederate accent: AusE vs. non-AusE) between-subjects factorial design. The dependent measures were the same as in Study 1: (a) convergence, as measured by the number of hypocoristic forms used by participants, and (b) participant-rated perceived common ground. Participants' Australian identification (ID) was also measured.

**Materials and procedure.** The materials and procedure were identical to Study 1, with the following exceptions. First, although the same map was used, the locations and landmarks were changed to reflect places in Melbourne. The participants were told that this was a stylized map of Melbourne and to ignore any cartographic inaccuracies. The scripts were identical to those used in Study 1 except for these changes in city-specific landmarks. Second, the female confederate participated in all four conditions in the experiment. That is, in the AusE condition, she either used or did not use hypocoristics while speaking in an Australian accent, and in the non-AusE condition, she spoke in a non-native English accent while either using or not using hypocoristics. During the debriefing session, no participants in the non-AusE conditions identified the speaker as a native speaker of AusE. The confederate was blind to the purpose of the study.

## Results

**Convergence.** We first determined whether participants in the hypocoristic condition converged with the confederate's use of these forms and whether this varied as a function of confederate accent. Table 3 shows the participants' mean use of hypocoristic forms (and standard deviation) by experimental condition (standard vs. hypocoristic target forms) and confederate accent.

**Table 4.** Mean Participant-Rated Perceived Common Ground by Confederate Accent (AusE vs. non-AusE) and Experimental Condition (Hypocoristic vs. Standard).

	AusE	Non-AusE	Total
Hypocoristic	7.24 (1.09)	6.22 (0.99)	6.75
Standard	5.93 (1.05)	6.18 (1.62)	6.05
Total	6.58	6.20	6.39

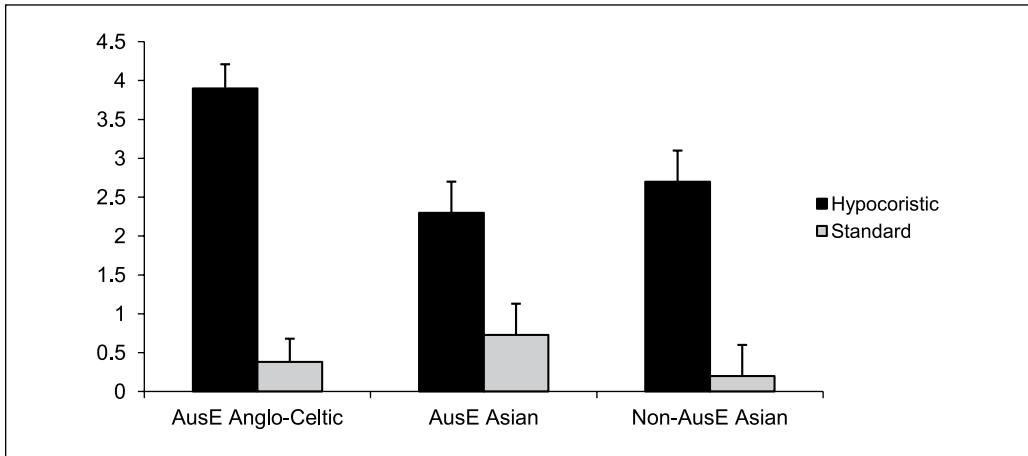
Note.  $n = 59$ .

Table 3 shows that the participants produced more hypocoristic forms in the hypocoristic conditions than in the standard word conditions, which did not appear to vary with confederate accent. The dependent measure was again not normally distributed, and efforts to transform it proved futile. We therefore modeled the data using generalized linear models. The data were first transformed so they did not contain 0 values, and a gamma log-link function was specified because the data were positively skewed. The variables of experimental condition (standard vs. hypocoristic) and confederate accent (AusE vs. non-AusE) were entered as fixed effects in a fully factorial design. The results showed that experimental condition significantly influenced the use of hypocoristic forms— $\chi^2(1) = 43.72, p < .001$ —with significantly more hypocoristic forms produced in the hypocoristic condition,  $\beta = .54, SE(\beta) = .09, p < .001$ . In contrast, the inclusion of confederate accent did not influence the use of hypocoristic forms— $\chi^2(1) = 0.4, p = .53$ —and the Condition  $\times$  Confederate Accent interaction was not significant,  $\chi^2(1) = 2.65, p = .1$ . A separate analysis using participant gender as an independent variable revealed a significant main effect for gender— $\chi^2(1) = 4.52, p = .033$ —with male participants producing significantly more hypocoristics overall than females participants,  $\beta = .53, SE(\beta) = .23, p = .031$ .

**Perceived common ground.** We next investigated whether participants' ratings of perceived common ground with the confederate varied with experimental condition (standard vs. hypocoristic) and confederate accent (AusE vs. non-AusE). Table 4 shows the mean perceived common ground ratings (and standard errors) for each experimental condition.

Figure 4 shows that participants in the AusE hypocoristic condition rated their perceived common ground with the confederate higher than the remaining three conditions. A 2 (condition: standard vs. hypocoristic)  $\times$  2 (confederate accent: AusE vs. non-AusE) between-subjects univariate ANOVA was conducted. The main effect of accent was not significant,  $F(1, 55) = 1.45, p = .23, \text{partial } \eta^2 = .026$ . A significant main effect of condition showed that, overall, participant-rated perceived common ground was higher in the hypocoristic than the standard condition,  $F(1, 55) = 6.82, p = .037, \text{partial } \eta^2 = .077$ . This was subsumed by a significant Condition  $\times$  Accent interaction,  $F(1, 55) = 3.96, p = .05, \text{partial } \eta^2 = .067$ . A simple main effects analysis was run to investigate the source of the interaction. The results revealed that participants reported higher perceived common ground with the confederate in the hypocoristic condition compared with the standard condition when the confederate had an AusE accent ( $p = .005$ ) but that reported perceived common ground did not change according to condition when the confederate had a non-AusE accent ( $p = .92$ ). Furthermore, participant-rated perceived common ground was higher in AusE hypocoristic condition than in the non-AusE hypocoristic condition ( $p = .029$ ). A separate analysis revealed no effects of participant gender.

In Study 1, we found that for participants in the hypocoristic conditions, the degree of convergence and Australian ID predicted their self-rated perceived common ground with the confederate. We investigated whether similar effects could be found in Study 2. A general linear model was built that included confederate accent (AusE vs. non-AusE), participant hypocoristic use,



**Figure 2.** Mean number of hypocoristics produced according to confederate type and experimental condition across Studies 1 and 2.

Note. Female confederates only; error bars denote standard error.

and Australian ID as fixed effects in a factorial design. There were no significant effects. This result must be interpreted with caution, however, as the sample size was smaller than in Study 1 and the analysis was therefore underpowered.

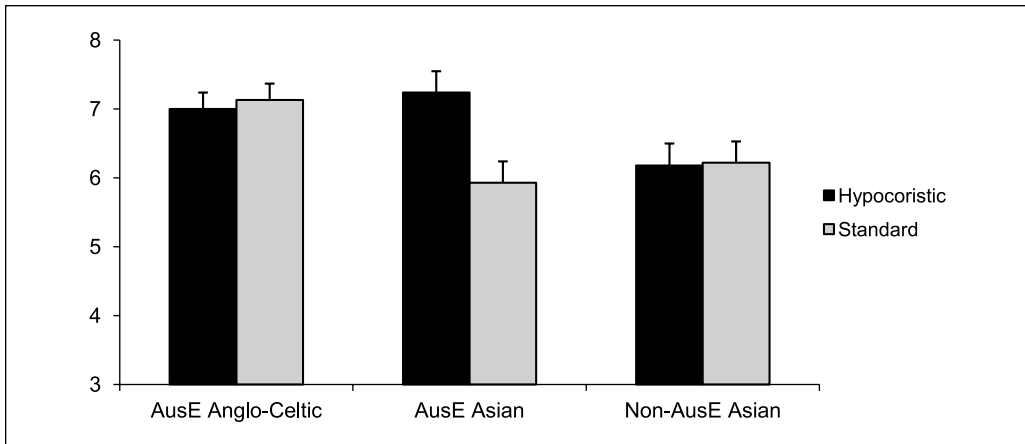
*Comparing Study 1 and Study 2.* We next conducted a combined analysis of Studies 1 and 2, allowing us to compare convergence and participant-rated perceived common ground across our three types of confederate. We compared the effect of confederate prototypicality on our outcome variables. For these analyses, we held confederate gender constant by only including data from Study 1 where the confederate was female.

We first compared participant convergence across Studies 1 and 2 ( $n = 106$ ). The data are presented in Figure 2.

The participants' use of hypocoristics was modeled using generalized linear models. The effect of confederate type (three levels: Anglo-Celtic AusE, Asian AusE, Asian Non-AusE) and condition (two levels: standard, hypocoristic) were modeled using a between-subjects factorial design. The main effect of confederate type was not significant,  $\chi^2(2) = 3.13, p = .21$ . In contrast, the main effect of condition was significant— $\chi^2(1) = 107.29, p < .001$ —revealing that significantly more hypocoristics were produced in the hypocoristic versus the standard condition,  $\beta = .54, SE(\beta) = .09, p < .001$ . This was subsumed by a significant Confederate Type  $\times$  Condition interaction,  $\chi^2(2) = 7.35, p = .025$ . The interaction was driven by the greater number of hypocoristics produced when participants interacted with the Anglo-Celtic AusE confederate in comparison with the Asian confederate conditions in Study 2.

We next compared the perceived common ground data with the results of Study 1. The data are presented in Figure 3.

A 3 (confederate type: Anglo-Celtic AusE, Asian AusE, Asian Non-AusE)  $\times$  2 (condition: standard, hypocoristic) univariate ANOVA revealed a marginal main effect for condition— $F(1, 102) = 3.13, p = .08, \text{partial } \eta^2 = .03$ —revealing an overall trend for higher participant-rated perceived common ground in the hypocoristic condition. There was a significant main effect for confederate type,  $F(2, 102) = 5.1, p = .008, \text{partial } \eta^2 = .091$ . Post hoc Bonferroni tests showed that participant-rated perceived common ground was significantly higher for the Anglo-Celtic confederate than for the Asian confederate with the non-AusE accent ( $p = .007$ ). No other comparisons were significant.



**Figure 3.** Mean perceived common ground by confederate type and experimental condition across Studies 1 and 2.

Note. Female confederates only; error bars denote standard error.

The two main effects were subsumed by a significant Confederate  $\times$  Condition interaction,  $F(2, 102) = 3.69, p = .028$ , partial  $\eta^2 = .068$ . The significant interaction was driven by the fact that the hypocoristic manipulation only had a significant effect in the AusE accent condition in Study 2; that is, when the confederate was of Asian ancestry but spoke with an AusE accent. In fact, when the Asian confederate spoke with an AusE accent and used hypocoristics, perceived common ground was equivalent to that of the (female) Anglo-Celtic confederate, but when the Asian AusE confederate used standard forms, perceived common ground patterned with the Asian non-AusE confederate.

## Discussion

In Study 2, we found that, as in Study 1, AusE-speaking participants converged with a conversational partner in the use of hypocoristics but that this did not vary with confederate accent. That is, participants were just as likely to converge with an in-group (AusE) member as they were with an out-group (non-AusE) member. Therefore, Hypothesis 1, that participants would converge with the confederate more in the AusE hypocoristic condition, was not supported. A comparison with Study 1 showed that convergence interacted with confederate prototypicality based on extralinguistic cues. That is, there was greater overall convergence in Study 1 when the confederate came from a prototypical in-group category—Anglo-Celtic. This result could be attributable to the notion of prototypicality. Turner (1986) argued that prototypical group members typify specific social identity features of a group, providing an anchor point for examining the degree to which behaviors have social influence. Our results, unsurprisingly, suggest that prototypical in-group speakers of AusE—those of Anglo-Celtic descent—exerted the greatest influence on participants' tendency to converge in conversation. This result may be related to the fact that prototypical (vs. nonprototypical) group members are typically rated higher on social attraction (Hogg & Hains, 1996), and is consistent with CAT's proposal that sociohistorical factors influence accommodation.

We also observed significantly greater participant-rated perceived common ground when the ethnically Asian AusE-accented confederate used hypocoristics in comparison with all other conditions. Therefore, Hypothesis 2 was supported. This result is consistent with CAT, which predicts that the use of linguistic cultural markers will be differentially evaluated depending on the

in-group status of the speaker. We interpret this effect to be evidence for the status of hypocoristics as markers of in-group identity. Interestingly, only hypocoristic use increased perceived common ground. Although accent is a strong predictor of social categorization (Kinzler et al., 2009; Rakić et al., 2011), it was not a sufficiently powerful enough cue in this situation to affect social closeness with participants. Features of our design may explain the pattern of results. The design was necessarily between subjects, and as such, participants had no point of contrast when rating the confederate. Thus, the use of an AusE or foreign accent by the confederate may have been fairly unremarkable from the perspective of the participant, who, given the multicultural nature of Australia, is likely to come into contact with native and non-native accents on a daily basis. Hypocoristics, on the contrary, provided added value on top of an AusE accent.

Finally, unlike in Study 1, we did not observe a relationship between the degree of convergence and perceived common ground (Hypothesis 3). That is, whereas in Study 1, perceived common ground was predicted by the individual-level measures of convergence and Australian ID, in Study 2, we observed a general effect of hypocoristic use. We have already suggested that the smaller sample size in Study 2 may underlie this difference. However, the prototypicality of the confederate may also have had an effect. Our Asian confederate who spoke with an AusE accent represents a nonprototypical in-group member. The use of hypocoristics is likely to have raised the participants' awareness of a higher degree of shared cultural knowledge, which may not have been anticipated. This may have led to a general increase in perceived common ground. In contrast, when the confederate was a highly prototypical in-group member, as in Study 1, a high degree of shared cultural knowledge is likely to have been assumed. As such, from the perspective of many participants, the use of hypocoristics may have been in and of itself unremarkable, which is why we may have only seen an increase in common ground following convergence. The general conclusion is that the use of culturally specific colloquial forms like AusE hypocoristics may have differential effects depending on the group prototypicality of the person who uses them. In cases of nonprototypical in-group members, the use of culturally iconic colloquialisms may serve to significantly promote their status among in-group members.

## General Discussion

Across two studies, we have demonstrated that the use of AusE hypocoristics has differential social effects in interaction, which vary according to the prototypicality of the speaker as a cultural group member. In Study 1, we found that in instances where participants and the confederate came from the same social category (i.e., Anglo-Celtic speakers of AusE), the degree to which a participant converged with a confederate predicted perceived common ground, a result we have interpreted to be consistent with the predictions of CAT (Gallois et al., 2005; Giles et al., 1991), which predicts that linguistic convergence is associated with social closeness between speakers. In Study 2, we found that the use of hypocoristics by a confederate from a nonprototypical in-group category (i.e., ethnically Asian with AusE) significantly increased perceived common ground in comparison with when the confederate used standard forms of words or was an out-group member. Finally, in a joint analysis of both studies, we found that the tendency to converge with a speaker in the use of hypocoristics and their effect on perceived common ground varies with speaker prototypicality. These differences across confederate types is also consistent with CAT, which predicts that communication and perceptions of communication vary depending on sociohistorical factors associated with different linguistic and cultural groups (Hornsey & Gallois, 1998; Gallois & Callan, 1988). Overall, the results underscore the key and complex role that language has as a marker of social identity, demonstrating that culturally emblematic lexical categories have social consequences depending on who uses them.

More broadly, the results speak to the potential role that social phenomena such as accommodation play in the maintenance and transmission of cultural knowledge, and ultimately to

the processes underlying of language variation and change. Although the processes underlying language change are complex, the general consensus is that social processes must play some role, however complex they may be (e.g., Baxter, Blythe, Croft, & McKane, 2009; Blythe & Croft, 2012; Nettle & Dunbar, 1997; see also Trudgill, 2008). As a category, AusE hypocoristics have undergone rapid expansion in the last 50 to 60 years (Kidd et al., 2011; Moore, 2008). This period coincided with a marked shift in the linguistic identity of Australians, from one that looked toward England to set stylistic standards through Received Pronunciation to one where the local vernacular received official status through government language policy and the establishment of dictionaries and style guides (Butler, 2001). The results from the present study provide a potential social explanation for the recent rapid expansion of hypocoristic forms. Namely, among prototypical in-group members, their use can have an affiliative function when users converge, and among nonprototypical in-group members, they appear especially useful, unambiguously signaling social identity and increasing social closeness. More broadly, this implicates social psychological variables in the dynamic interplay between cultural and linguistic evolution (Holtgraves & Kashima, 2008; Y. Kashima, Kashima, & Kidd, 2014).

It is important to note that although we are suggesting that processes like convergence may play a role in the maintenance and transmission of linguistic practices, any causal arguments based on these data would be premature. An alternative explanation for the results we observed in Study 1 is that participants converged because the confederate's use of hypocoristics served to establish common ground. Our data cannot be used to decide between these two possibilities: Because our participants completed the questionnaire measuring perceived common ground after the experiment, any analysis suggesting that perceptions influenced linguistic behavior suffers from the logical problem that perceptions were measured after the participants engaged in the linguistic behavior of interest. To adequately answer this question, we would need to measure (or manipulate) perceptions prior to the experiment. Regardless, the commonality between these explanations is that the use of culturally emblematic linguistic practices can, in some speakers, increase common ground between speakers, and this is the main contribution of our article. Future work is needed to tease apart the causal pathway between hypocoristic use, speakers' perceptions, and common ground.

There are several avenues of future research. Although the current studies varied the in-group prototypicality of the confederate, we did not vary the characteristic of the participants beyond measuring their Australian ID. Australia, like most Western countries, is socially stratified and the local vernacular is strongly (although not exclusively) associated with the lower to lower-middle classes. It would therefore be interesting to investigate whether variables that correlate with socioeconomic status (e.g., education) affect the perception of people who use hypocoristics. Given the rapid expansion of hypocoristics in the last two generations, perhaps an even more intriguing question is how person-specific variables affect the cultural transmission of the linguistic practice. In the present research, our samples were not balanced enough to identify consistent participant gender effects: In Study 2, we observed a significant main effect for gender overall, and the data in Study 1 did point in the same direction (males using an average of 3.1 hypocoristics overall compared with an average of 2.2 for females). The influence of participant gender and the role of gender in the transmission of hypocoristic use as a culturally linguistic practice is therefore an obvious avenue of future research. In fact, preliminary data from our labs suggest that having an Australian-born father favorably disposes participants to confederate hypocoristic use, whereas having an Australian-born mother has no effect. Therefore, males may play (or may *have played*) a prominent role in the transmission of hypocoristic use. Finally, as the cultural diversity of Australia continues to grow, hypocoristic use may be a predictor of acculturation, as has been shown for the use of vocative *mate* (Alimoradian, 2014).



## Conclusion

The current article is, to our knowledge, the first to experimentally link the use of culturally emblematic lexical items in conversational interaction to social affiliation. Following suggestions in the linguistics literature, we have shown that the use of AusE hypocoristics such as *servo* (“service station”) and *ciggie* (“cigarette”) are associated with social closeness between in-group speakers of AusE but that this varies with properties of the speaker. Overall, the data suggest that hypocoristics are markers of in-group identity, and their use may enhance social bonds by virtue of the fact that they invoke scripts that reflect a shared cultural heritage between speakers.

## Appendix

*Confederate Scripts—Study 1 (the scripts for Study 2 were the same except that some landmarks changed)*

### *Confederate Scripts: Standard Condition*

Standard form of the target word (in bold font)

#### **University of Tasmania to the Casino**

Start at the **university**. You should see Lazenbys and some **university** students working on their **laptops** on the grass. Take a **right-hand turn** out of university onto Regent St. Stop at the pedestrian crossing for that student with the **dreadlocks**. Then keep traveling along Regent St. till you get to the lights. Take a **right-hand turn** onto King St. Go along King St., and stop again at the lights. Turn right onto Sandy Bay Rd. Go down Sandy Bay Rd. You’ll pass a **McDonalds** on your left, and then you’ll see that **Mercedes**, also on the left. Keep going, and you’ll pass **Chickenfeed** on the right. Go along past the Sandy Bay waterfront, and you’ll pass the Caltex **service station** on the left before you get to the **Casino**.

#### **Salamanca to the Mall**

Go back up the street from **Knopwoods** and the **Telegraph Hotel**, past **Irish Murphys**, until you get to Davey St. Take a **right-hand turn** onto Davey St., and you’ll see the metro bus on the corner near the bus mall. Take a left turn here onto Elizabeth St., and go up Elizabeth St. to the mall. You’ll see ladies shopping. There’s a kid there having a **tantrum** with his mum. Stop at the traffic lights, just near the National Bank. There are some **police officers** standing on the corner.

#### **Mt. Wellington to the Royal Hobart Hospital**

Go back down Pinnacle Rd., past the Fern Tree **Tavern**, and keep going down onto Huon Rd. Then take a **left-hand turn** where Huon Rd. connects onto Davey St. Then go up Davey St., past the **man riding the motorbike** and the man having the **cigarette**, up to the traffic lights. Then go past the metro bus at the bus mall. Take a **left-hand turn** onto Elizabeth St., and then turn right onto Liverpool St. You’ll see that kid having the **tantrum** at the mall and the **police officers** near the National Bank. Keep going along Liverpool St., and you’ll come to the **Royal Hobart Hospital**. You should see the **ambulance officer** outside.

#### **The Royal Hobart Hospital to Northgate in Glenorchy**

Go back down Liverpool St. from the **Royal Hobart Hospital** to the traffic lights near the mall. Take a **right-hand turn** at the traffic lights onto Elizabeth St., and go up past the **man riding the motorbike** and the **Mercedes**. You’ll see the **advertisement** for Farmer’s Union Iced Coffee on the left and **Hungry Jack’s** on the right. You should see the **fire engine** on the right and the kids

at the North Hobart oval doing little **athletics**. Keep going up Elizabeth St. through North Hobart and past the lady with the pram putting on **lipstick**. Then keep going, and you'll get to Northgate in Glenorchy. You'll see some girls on the left in their **ugg boots**.

### *Confederate Scripts: Hypocoristic Condition*

Hypocoristic form of the target word (in bold font)

#### **UTAS to the Caz**

Start at **uni**. You should see Lazenby's and some **uni** students working on their **lappies** on the grass. Take a **righty** out of uni onto Regent St. Stop at the pedestrian crossing for that student with the **dreads**. Then keep traveling along Regent St. till you get to the lights. Take a **righty** onto King St. Go along King St., and stop again at the lights. Turn right onto Sandy Bay Rd. Go down Sandy Bay Rd. You'll pass a **Maccas** on your left, and then you'll see that **Merc**, also on the left. Keep going, and you'll pass **the Feed** on the right. Go along past the Sandy Bay waterfront, and you'll pass the Caltex **servo** on the left before you get to the **Caz**.

#### **Salamanca (Knoppys) to the Mall**

Go back up the street from **Knoppys** and the **Tele**, past **Irish**, until you get to Davey St. Take a **righty** onto Davey St., and you'll see the metro bus on the corner near the bus mall. Take a left turn here onto Elizabeth St., and go up Elizabeth St. to the mall. You'll see ladies shopping. There's a kid there having a **tantie** with his mum. Stop at the traffic lights, just near the National Bank. There are some **coppers** standing on the corner.

#### **Mt. Wellington to the Royal**

Go back down Pinnacle Rd, past the Fern Tree **Tav**, and keep going down onto Huon Rd. Then take a **lefty** where Huon Rd. connects onto Davey St. Then go up Davey St., past the **bikie** and the man having the **ciggie**, up to the traffic lights. Then go past the metro bus at the bus mall. Take a **lefty** onto Elizabeth St., and then turn right onto Liverpool St. You'll see that kid having the **tantie** at the mall and the **coppers** near the National Bank. Keep going along Liverpool St., and you'll come to the **Royal**. You should see the **ambo** outside.

#### **The Royal to Northgate in Glenorchy**

Go back down Liverpool St. from the **Royal** to the traffic lights near the mall. Take a **righty** at the traffic lights onto Elizabeth St., and go up past the **bikie** and the **Merc**. You'll see the **ad** for Farmer's Union Iced Coffee on the left and **Hungrys** on the right. You should see the **firie** on the right and the kids at the North Hobart oval doing little **aths**. Keep going up Elizabeth St. through North Hobart and past the lady with the pram putting on **lippie**. Then keep going, and you'll get to Northgate in Glenorchy. You'll see some girls on the left in their **uggies**.

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## Notes

1. An anonymous reviewer suggested that using the number of hypocoristics participants used does not control for verbosity between participants and that a proportional measure (e.g., Number of hypocoristic forms / Total number of words where hypocoristics could be used) would be better. In fact, these two measures are highly correlated ( $r = .972, p < .001$ ) and thus measure the same thing. We have used total number here because participants sometimes used hypocoristics for concepts not included on the map (i.e., they introduced new hypocoristic forms to the task), and the measure of number of hypocoristics used captures these instances.
2. Importantly, Australian identity did not predict participant-rated perceived common ground in the standard condition ( $r = -.08, p = .63$ ).

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