Do abstract priming, talker beliefs about listener background, and partner-specific conceptual pacts all affect lexical choice during cross-dialectal communication?

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Introduction

Interlocutors repeat one another's referential expressions in many scenarios[1]. Previous psycholinguistic studies have found evidence for **priming** (both lexical and abstract) [2], **talker's beliefs about the listener** [3,4] and **partner-specific conceptual pacts** [5]. Sociolinguistic studies have shown that alignment can also occur during bidialectal communication. For example, a Scottish-English bidialectal speaker is more likely to say "Do you ken?" when addressing a perceived Scottish listener and "Do you know?" when addressing a perceived English listener [6]. "Know" and "ken" have the same meaning, so the talker has to choose between two legitimate lexical items when planning her speech. How does she do this? As the mechanisms listed above can lead to lexical alignment under other circumstances, the current study investigates whether they can lead to alignment in bidialectal communication too.

Question: do abstract/lexical priming, talker beliefs about the listener's dialectal background, or partner-specific conceptual pacts affect dialect word choice during cross-dialectal communication?

Concept and Predictions

Two referential communication experiments were conducted. In each experiment, each participant is assigned to 1 of the 4 conditions shown in Figure 1.

Figure 1
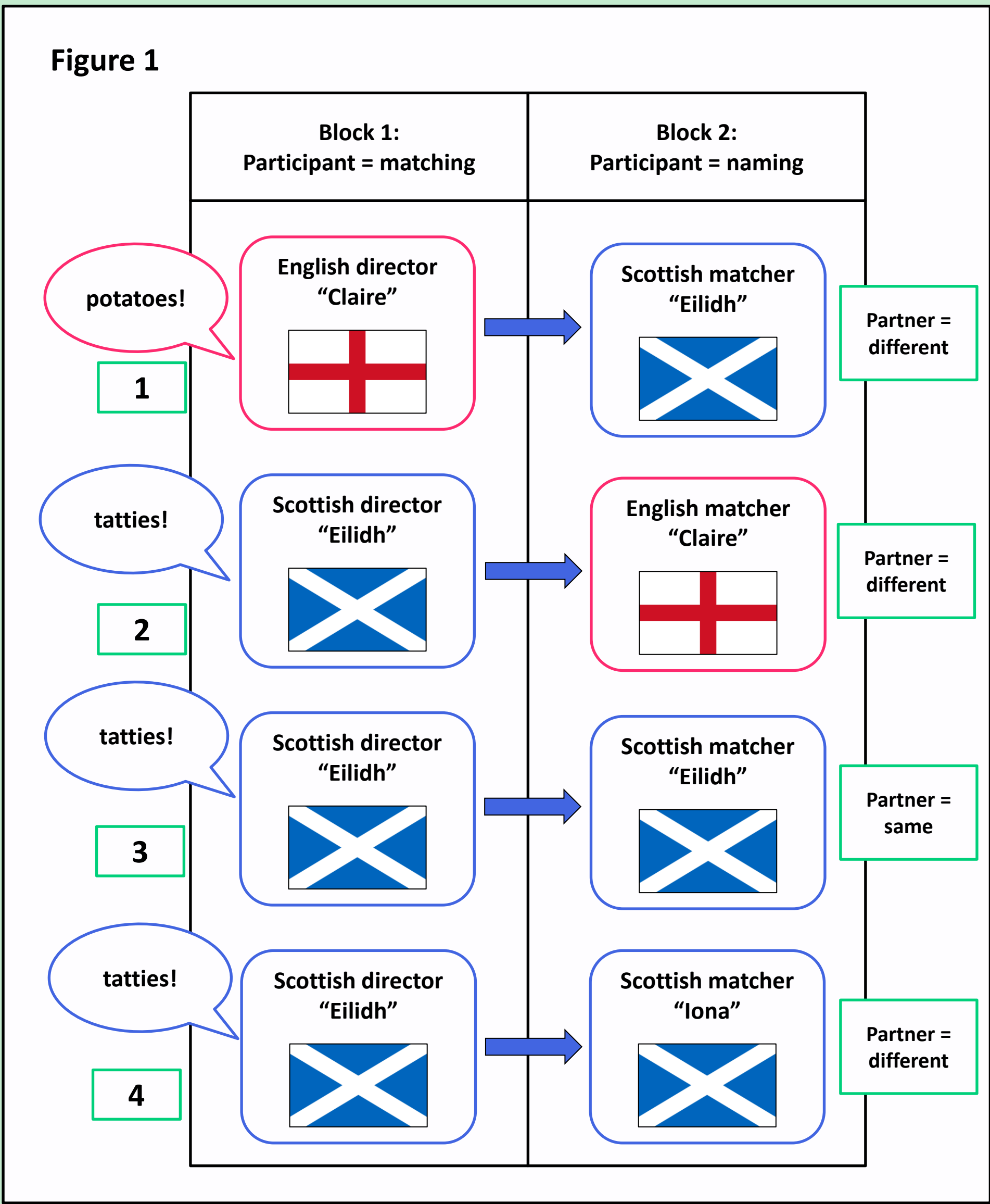
In Exp 1 participants encounter the same items in each block, whereas in Exp 2 they encounter novel items in block 2. Therefore, we predict:

If **abstract priming** is present, Exp 1 and Exp 2 will see more Scottish words produced after working with a Scottish director than an English director.

If **lexical priming** is present, Exp 1 will see more Scottish words after working with a Scottish director than an English director, but Exp 2 will not.

If **talker beliefs about the current addressee's dialect background** affect word choice, then more Scottish words will be produced when the current matcher is Scottish than when they are English, irrespective of director nationality in the previous block.

If **partner-specific conceptual pacts** affect word choice, then more Scottish words will be produced when the same Scottish person is assigned as both director and matcher, versus when the director and matcher in each block is still Scottish but is a different individual.

Method

EXPERIMENT 1

Participants: 112 Scottish undergraduates (self-reported as familiar

Design: A picture matching-and-naming experiment was conducted online. Trials were blocked: Block 1 = picture matching; Block 2 = picture naming. Items were repeated across blocks i.e. participants named the same items in Block 2 that they had matched in Block 1.

Materials: 76 target pictures equally nameable by both a Scottish dialect word and a semantically equivalent standard English word (e.g. 'baffies' [Scottish] or 'slippers' [English]), plus 38 fillers with no dialectal component (e.g. 'computer'/'PC').

Procedure: In Block 1, participants matched pictures with cue words typed by their partner (Figure 2A). In Block 2, participants named target pictures for their partner to match, choosing the Scottish dialect word or the standard English word provided (Figure 2B).
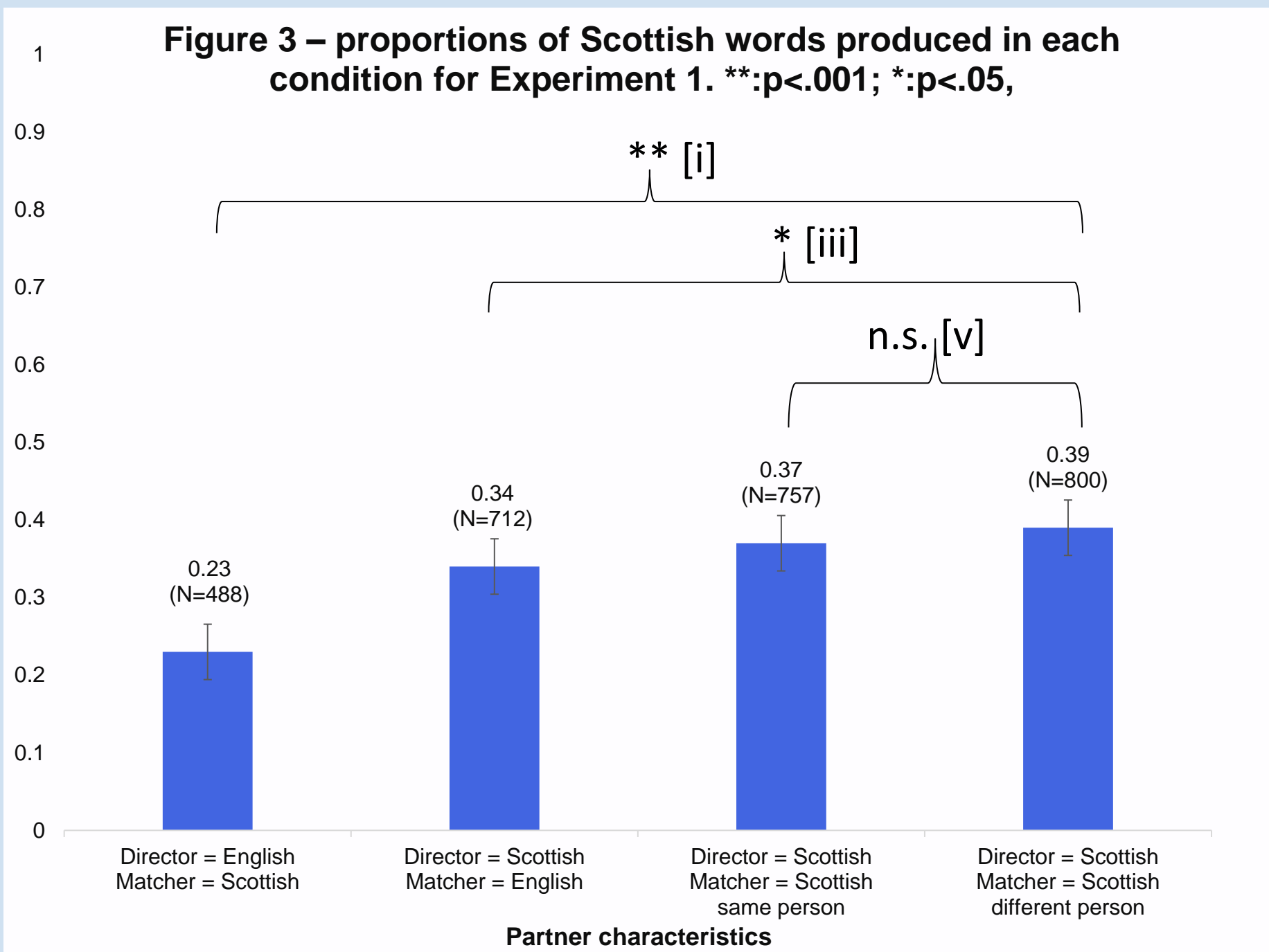

Figure 2
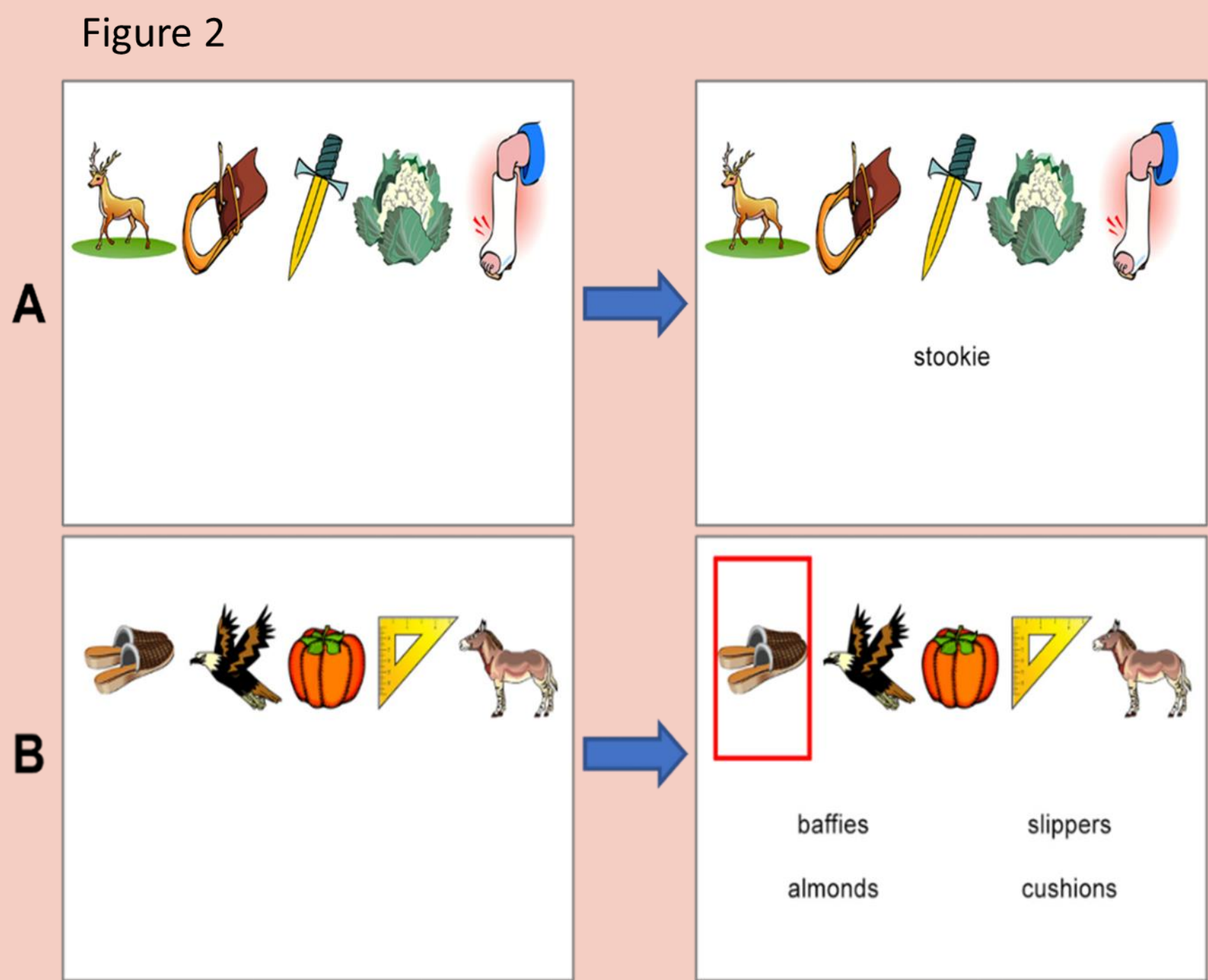
EXPERIMENT 2

Participants: 140 Scottish undergraduates (self-reported as familiar with Scottish dialect).

Design: As in Experiment 1, except different items were presented in the two blocks i.e., the items participants named in Block 2 were different from the items they had matched in Block 1.

Materials and Procedure: As in Experiment 1, except each individual participant saw half as many items as in Exp 1.
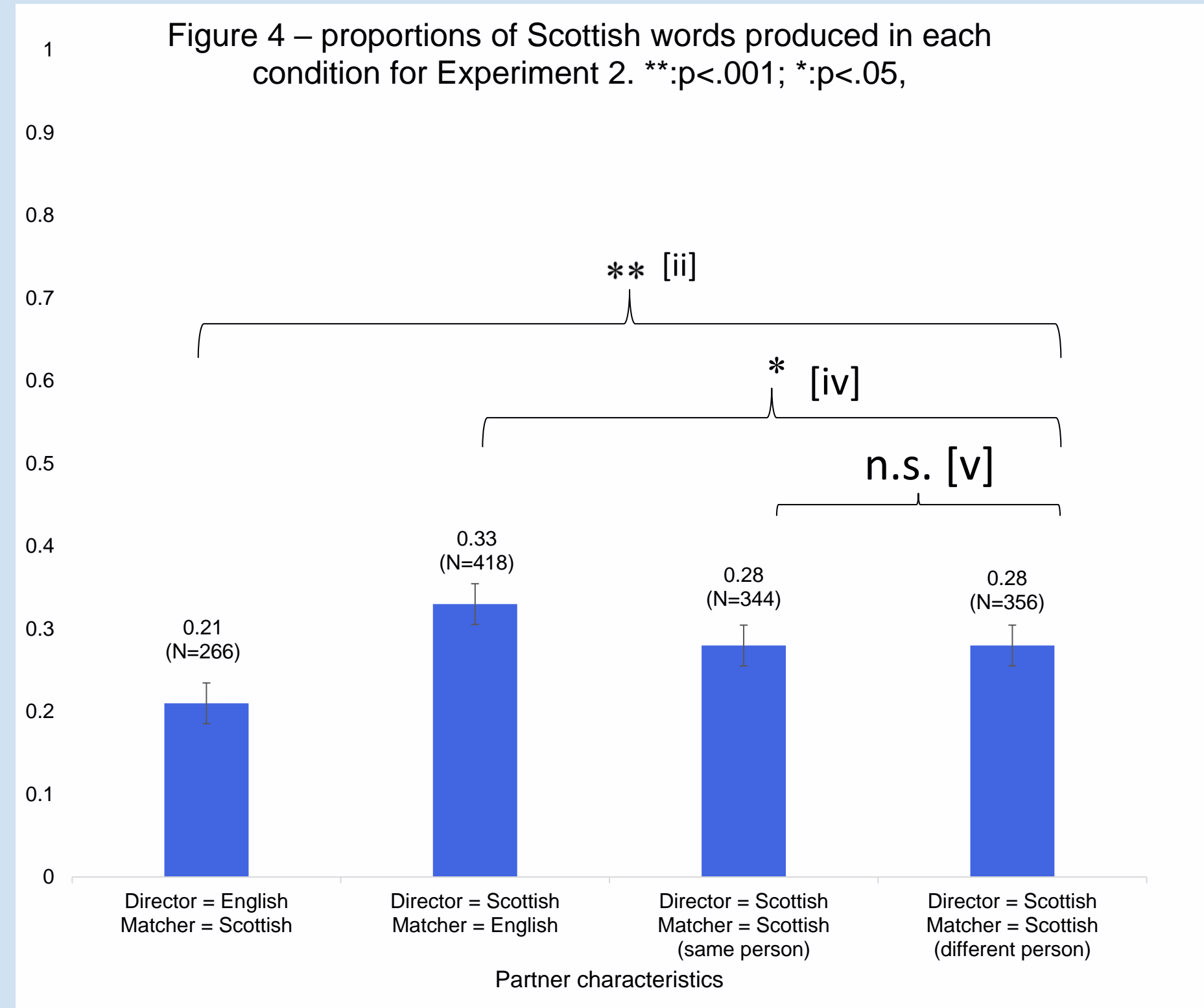
Results (i)

For Exp1, GLMER analyses (see Fig. 3) showed that more Scottish words were produced when the director was Scottish than English ($\beta = .83, SE = .07, z = 11.1, p < .001$) as well as when the matcher was Scottish than English ($\beta = .21, SE = .07, z = 3.11, p = .002$). When the director was Scottish, it made no difference whether the matcher was the same individual or different as long as they were Scottish ($\beta = .06, SE = .83, z = .84, p = .402$).

Figure 3 – proportions of Scottish words produced in each condition for Experiment 1. **:p<.001; *:p<.05,

Results (ii)

For Exp 2, GLMER analyses (see Fig. 4) showed more Scottish words were produced when the director was Scottish than English ($\beta = .41, SE = .10, z = 4.3, p < .001$). Unexpectedly, more Scottish words were produced when the matcher was English than Scottish ($\beta = -.27, SE = .09, z = -2.9, p = .003$). When the director was Scottish, it made no difference whether the matcher was the same person or different as long as they were Scottish ($\beta = .01, SE = .09, z = .12, p = .905$).

Figure 4 – proportions of Scottish words produced in each condition for Experiment 2. **:p<.001; *:p<.05,

Additionally, a cross-experiment analysis revealed that the increased rate of Scottish word production for Scottish directors in Block 1 than English directors in Block 1 was higher for Exp 1 than Exp 2 (p=.003).

Discussion

Both Exps found a significant effect of director dialect on lexical choice, but at differing rates. This is **clear evidence for lexical priming [i]** and **abstract (i.e. dialect level) priming [ii]** both affecting lexical choice during bidialectal communication.

Evidence for audience design based on the talker's beliefs about their interlocutor's dialect background was unclear. In both Exps, participants produced significantly different rates of Scottish words when the matcher was Scottish versus English.

However, the direction of the difference is oppositional. It is difficult to explain why addressing a Scottish matcher should lead to an increased rate of Scottish word production in Exp 1 [iii] but an increased rate of English word production in Exp 2 [iv]. The only methodological change was going from within-items to between-items. So, interpretation of these findings requires further consideration.

This difference between conditions may be evidence that participants modified their word choice in response to the matcher's background. If participants completely failed to notice matcher background at all, we would expect to find no difference.

Neither experiment found evidence that the individual director/matcher (i.e. whether they were the same person or a different person) had any effect on lexical choice [v], suggesting that **participants did not form partner-specific conceptual pacts.**

References

[1] Brennan & Clark (1996), J of Experimental Psychology; [2] Pickering & Garrod (2004), Behavioural & Brain Sciences; [3] Branigan et al (2011), Cognition; [4] Isaacs & Clark (1987), J of Experimental Psychology; [5] Metzing & Brennan (2003), J of Memory & Language; [6] Watt, Llamas & Johnson (2010), J of English Linguistics.