It's not just Imprecision: Stereotypes guide Vagueness Resolution in Implicit Comparisons

Recent work highlighted a bi-directional relation between the social and descriptive dimensions of meaning [1, 5, 2, 7, 4]. For instance, speakers are associated with different social stereotypes based on the *precision* level they choose (High → ***Nerdy***; Low → ***Chill***); and numerals are interpreted *more precisely* when uttered by Nerdy (vs. Chill) speakers [3]. These results show the key interplay of social information and pragmatic interpretation, raising two questions: (**i**) Do social information effects hold for processes of indeterminacy resolution besides numerical imprecision? (**ii**) What specific dimension of pragmatic reasoning leads comprehenders to adjust their interpretation based on a specific stereotype? One possibility is that Nerdy speakers are perceived as especially *attentive to literal meaning* (**Hyp.A**), thus committed to using expressions fully in line with their truth-conditions; alternatively, Nerds might be perceived as *attentive to details* more broadly (**Hyp.B**), and committed to incorporating such details in their descriptions. Prior work on imprecision does not differentiate these options, as both predict more precise interpretations for Nerdy speakers. We thus turn to a new domain: *vague* predicates' interpretation in implicit comparisons.

ICs, Vagueness, & Similarity. *Implicit Comparatives* (**ICs**) with vague predicates, in (1), are subject to a *Similarity Constraint* (**SC**; [8]): the two objects described must *significantly* diverge along the relevant dimension (Cxt 2), resulting in infelicity if they don't (Cxt 1).

(1) Route A is long, but Route B is not. (Road A = 600 miles)
#Cxt 1: Road B = 595 miles ✓**Cxt 2**: Road B = 295 miles ??**Cxt 3**: Road B = 495 miles

The SC is ultimately rooted in the semantics of vague predicates: *long* is true of an object iff it exceeds a contextually relevant threshold *by a significant amount* [6, 8]; but this can't hold for A but not B if A,B only minimally differ. What remains underexplored is how and when comprehenders adjust the threshold of what counts as "different enough" to satisfy the SC to possibly accept the use of ICs in intermediate cases (Cxt.3). We address this by exploring how this process is shaped by social information about the speaker, guided by Hyp.A-B above. Per Hyp.A, Nerdy speakers should be perceived as more committed to strictly adhering to ICs' truth-conditions than Chill speakers, and thus as more *hesitant* to use ICs with similar objects, to avoid risking violating the SC. Per Hyp.B, Nerds should be perceived as more *detail-oriented* than Chill speakers, and thus more *prone* to using ICs with similar objects, since this allows them to express subtle distinctions.

ICs and Imprecision The SC crucially doesn't hold for ICs with Maximum Standard adjectives, which are imprecision-prone, but not vague [8, 9]): using an IC to represent 100% vs. 95% full tanks (e.g.,"A is *full* but B is not") generates a statement that is both highly granular, and perfectly truth-conditionally compliant. Regardless of Hyp. A-B, Nerds should thus be expected to use ICs in this way especially frequently, making it possible to test findings on social effects on numerical imprecision in the adjectival domain, and to assess how the resolution of semantic (vagueness) vs. pragmatic (imprecision) indeterminacy is shaped by social information.

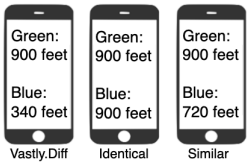
Methods We implemented a variant of [3]'s covered screen task (n=360, from Prolific). The stimuli introduced textual scenarios where one speaker, after looking at their phone, makes a statement containing an IC with a vague adjective. In our first factor, we manipulated the **Identity** of the speaker with three levels:Nerdy, Chill; No.Social (no social information provided, ∅ below).

(2) Rachel and Arthur, {who have been described as [Chill/Nerdy] /∅}, want to go for a swim. Arthur checks his phone and says: "*Green Lake is wide, but Blue Lake is not*".

Participants would then see one phone image with a VISIBLE and one with a Covered screen, selecting the former if they thought the speaker's statement was based on its content, and the latter otherwise. In our second factor, we manipulated the **Similarity** between the two objects being described (e.g., Green vs. Blue Lake), measured as the Object2/Object1 ratio, with three levels: *Vastly.Different* (ratio=0.35; SC clearly satisfied); *Identical* (ratio=1.00; SC clearly violated); and the critical *Similar* condition (ratio=[0.50-0.80]), with SC's status uncertain and con-

tingent on comprehenders' reasoning – range selected based on prior norming). 12 items were distributed in 4 lists (3 each for Vastly.Different/Identical, 6 for Similar). Of the 16 fillers, 8 had ICs with Maximum Standard (e.g., *full* adjectives used to describe near-identical objects (ratio=0.95).

Predictions. VISIBLE-rates, indicating participants accepting the IC, should be at floor/ceiling for Identical/Vastly.Different, with no Identity effect. For the critical Similar condition, we expect intermediate VISIBLE-rates. **Hyp.A** predicts an Identity effect with VISIBLE-rates: Nerdy $<$ No.Social $<$ Chill; **Hyp.B** predicts Nerdy $>$ No.Social $>$Chill. For ICs with absolute adjectives we expect Nerdy $>$ No.Social $>$Chill regardless of Hyp. A-B.



F1: VISIBLE screens in Similarity

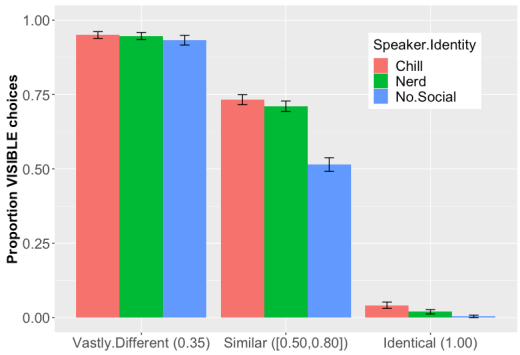
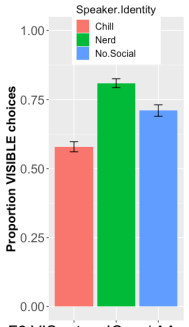


Fig.2: VIS-rates for ICs w/ Vague Adjectives

Results.We fit a ME logistic regression with Similarity (ref=Similar) and Identity (ref=No.Social) as predictors, random intercepts+slopes for Identity for Items, random intercepts for Subjects. VISIBLE-rates (**F2**) are at (near) floor/ceiling in Identical and Vastly.Different, with higher (β=2.48; $p<0.001$) and lower (β=6.47;$p<0.001$) rates than in the Similar condition and no Identity difference. In the critical Similar condition we found an Identity effect, with VISIBLE-rates for *both* Nerdy (β=0.93; $p<0.001$) and Chill (β=1.09; $p<0.001$) higher than No.Social. A ME regression on absolute adjective fillers (**F3**) showed higher VISIBLE-rates for Nerdy (β=0.64; $p<0.05$) and lower for Chill (β=-0.75; $p<0.05$) vs. No.Social.

Discussion Social information affects comprehenders' resolution of the Similarity Constrain – hence, their assessment of whether an Implicit Comparative with a vague predicate is appropriate in the context. This is shown by the higher VISIBLE-rates for both Nerdy and Chill speakers relative to the No.Social condition. The specific pattern, however, does not neatly align with either Hyp.A or B. The observed higher VISIBLE-rate for Nerdy than No.Social aligns with Hyp.B, supporting the idea that these speakers are perceived as especially committed to representing detail, leading comprehenders to accept a relative small difference between the two objects as justifying the use of an IC; yet, the higher VISIBLE-rates for Chill than No.Social is unexpected under this hypothesis. We consider two explanations. One is that the Identity manipulation simply didn't work. But the absolute adjective data speak against this: *consistent* with [3], Nerdy speakers' descriptions *are* indeed interpreted more precisely than Chill ones', suggesting that the social manipulation affected interpretation as expected, and that imprecision resolution is similarly affected by social information across numerals and adjectives. The second option is that comprehenders' similar behavior across the two social identities for vague adjectives is based on a bias towards adopting a charitable interpretation, seeking whatever justification can be found to see the facts on the visible screen as in line with the IC. On this view, comprehenders would then recruit social information to accept the statement-to-scenario pairing in the context in whatever way is consistent with the specific stereotype – by perceiving Nerdy speakers as especially detail-oriented, and of Chill speakers as inclined to be looser with the truth-conditions of ICs. In sum, our findings shed novel light on the interface between social and pragmatic reasoning by: (i) suggesting that the interplay between stereotypes and interpretation, besides imprecision, is also observed in vagueness resolution; (ii) replicating prior results on the effects of social information on imprecision in a different grammatical domain.



F3:VIS-rates, ICs w/ AAs

[**1**] Acton & Potts 2014. That straight…*J.Slx*• [**2**] Beltrama 2020. Social meaning …. *LgLxComp* • [**3**] Beltrama & Schwarz 2021. Imprecision, Identity …*SALT 31* • [**4**] Beltrama, Solt & Burnett 2022. Context …. *LinS* • [**5**] D'Onofrio 2018. Personae…*LinS* • [**6**] Glass 2015. Strong necessity …. *PWPL* • [**7**] Graff Fara 2000. Shifting Sands. *Phil. Topics* •[**8**] Henderson & McCready. 2020. Dogwhistles, Trust…*AC* •[**9**] Kennedy 2007. Vagueness …*L&P* • [**10**] Solt 2015. Vagueness and Imprecision. *A.R of Ling*