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SLURS AND NEGATION

abstract

We present the results of an experimental study that aims at establishing whether the offensive component of slurs exhibits nondisplaceability (Potts 2007). We found that the derogatory content survives in conditionals and questions (supporting a pragmatic approach), and diminishes in indirect reports (in line with presuppositional accounts); surprisingly, the offensiveness of slurs results almost nullified in negated sentences. In a second study, we explore the hypothesis that negated slurs were rated as not offensive because the negation was interpreted as metalinguistic.

keywords

slurs, pejoratives, metalinguistic negation, semantics/pragmatics interface

1. Introduction

Slurs are derogatory epithets that target specific groups, identified mainly on the basis of race (*nigger* for a black person), nationality (*wop* for Italian), religion (*kike* for Jew), sexual orientation (*faggot* for gay). Slurs differ from other pejoratives (*moron*, *asshole*) because they insult a person inasmuch as (s)he belongs to a specific group, that can be identified by means of a not-offensive expression, the neutral counterpart (or non-pejorative correlate).

Slurs are particularly hateful and pernicious because they convey and reinforce stereotypes about the target group, they harm “their target’s self-conception and self-worth, often in ways that are common to the social group as a whole” (Jeshion 2013: 314), and they are thus considered taboo, prohibited words (Anderson & Lepore 2013b).

A lively debate has developed in recent years regarding the *meaning* of these expressions, and, in particular, the proper way to account for their offensiveness. A first distinction can be drawn between deflationary accounts and content-based theories: the former view slurs’ offensiveness as stemming not from a derogatory *content* they would express, but from other extra-linguistic factors, such as the presence of relevant edicts surrounding their prohibition (Anderson & Lepore 2013b), or the fact slurs are tools to signal the affiliation with racist views (Numberg 2013). Content-based approaches, on the other hand, aim at offering an analysis of slurs offensive *content*, in semantic or pragmatic terms. Semantic theories assume that a slur encodes as part of its literal meaning the derogation with respect to the target group. A sentence such as (1), then, is considered to be truth-conditionally equivalent to (something like) (2):

- (1) Leo is a faggot.
- (2) Leo is homosexual and despicable because of it.

Pragmatic accounts view the reference to the target group and the derogatory attitude as two separate components of a slur: the sentence in (1) is seen as semantically equivalent to (3), that constitutes the descriptive content, whereas the derogation with respect to the target group, paraphrasable as in (4), is pragmatically conveyed, as a presupposition (Schlenker 2007, Cepollaro 2015), or conventional implicature (Potts 2007, Williamson 2009, McCready, 2010):

- (3) Leo is a (male) homosexual.
- (4) Homosexuals are despicable.

In this contribution, we focus on the predictions these content-based theories¹ make about the survival of slurs' offensive component in various linguistic contexts. One of the slurs' main peculiarities, in fact, is that they appear to be offensive not only when they are used in a positive statement, as in (1), but also when they are negated, as in (5):

(5) Leo is not a faggot.

Notice that this feature distinguishes slurs from simple pejoratives: both (5) and (6) can be viewed as rude, nevertheless it is only the former that sounds derogatory towards the target group of homosexuals, whereas (6) should not carry any offense.

(6) Leo is not an asshole.

Semantic theories assume that the derogatory content of a slur is part of its literal meaning, and therefore it falls under the scope of operators such as negation, conditionals, questions. In other words, in a sentence like (5), the negation operates on (and thus denies) the derogation – which would not be asserted. Hom admits that “[f]or many, the taboo surrounding epithets is not limited to their direct use, but covers their occurrence within quotation, fiction, intensional contexts, questions, negations, conditional antecedents, and even extends to phonologically similar, but semantically distinct, expressions” (Hom 2008: 427), but he proposes to distinguish between *real* derogation, stemming only from the actual predication (that is, only when the slur is attributed to someone, as in (1)), and *squeamishness*, a feeling of discomfort when a slur is embedded in a non-predicative environment (as in (5)). According to Hom, in other words, the actual derogation towards the individual Leo is indeed present only in (1), whereas a sentence like (5) does not derogate Leo, even if the fact that the speaker chose to use a slur (instead of the neutral counterpart) might suggest that she shares bigots stereotypes and contempt towards homosexuals: “uses of epithets often carry the presumption that its speaker subscribes to the underlying racist institution” (Hom 2008: 435). Pragmatic theories, on the other hand, expect only the truth-conditional content (3) to fall within the domain of linguistic operators, whereas the derogatory component (4), being pragmatically conveyed, could survive and be transmitted to the whole sentence. Thus, within a pragmatic approach to slurs, the derogation towards the target group expressed by means of a slur is predicted to be the same in positive contexts such as (1) and negative statements like (5). And, in fact, it has been claimed that slurs exhibit non-displaceability (Potts 2007), that is, their derogatory content “scopes out” (Hedger 2012) of different linguistic contexts. Williamson (2009: 146), for instance, considering the occurrences of *boche* (slur for Germans) notes that “the xenophobic abuse is preserved in the negations”. Enlarging the perspective, Croom (2014: 228) acknowledges that “the potential offensiveness of slurs is [...] further evidenced by more straightforwardly linguistic considerations, such as through an analysis of their projection behavior across a diverse range of linguistic contexts”. And following the same intuition, Hedger (2012: 74) proposes the following generalization: “the offensive content of slurs scopes out of logical operators”. In other words, slurs' offensiveness would be conveyed not only in predicative contexts (like (1)) and negative statements (like (5)), but also in sentences where the slur is hypothesized (as in (7)), questioned (as in (8)):

1 We will not take into consideration deflationary accounts, since, as already alluded to, they do not view slurs as expressing a derogatory *content*, and thus it is hard to pin down their predictions in specific contexts.

- (7) If Leo is a faggot, he knows the answer.
 (8) Is Leo a faggot?

Although we can find in the literature several different ways to refer to this projection behaviour (“non-displaceability”, Potts (2007); “scoping-out”, Hedger (2012); “project-out”, Camp (2013); “persistence of offensiveness”, Hom and May (2013)), the phenomenon has been defined with sufficient clearness. Indeed, it is supposed to be so revealing for the slurring phenomenology that some researchers (e.g. Jeshion 2013, Cepollaro 2015) use it as a tool to dismiss some semantic accounts (e.g. Hom 2008), in favour of pragmatic approaches. There is a controversy as to what happens when a slur is embedded in a report, as in (9):

- (9) Gianni said that Leo is a faggot.

According to some scholars (Potts 2007), the person (the speaker of (9)) who is reporting what was said by someone else (Gianni) is offensive, since she did not choose to utter a neutral term. Other scholars (Kratzer 1999, Schlenker 2007) maintain that reporting a “bad word” uttered but someone else does not necessarily require the speaker to share the same negative attitude. Schlenker (2007)’s example in (10) illustrates this situation:

- (10) I am not prejudiced against Caucasians. But John, who is, thinks that you’re the worst honky he knows.

As we already mentioned, pragmatic approaches defend the idea that the derogatory component is not part of what is literally said, rather it is transmitted either as a presupposition or as a conventional implicature. Presuppositional and conventional implicature approaches easily account for the survival of the offensiveness of slurs in the linguistic contexts of negation, antecedents of conditionals and questions, but, quite interestingly, they make different predictions for indirect reports such as (9). Since the indirect report in (9) is a “plug” (Karttunen, 1973), presuppositional approaches to slurs predict that the derogatory import would be blocked in (9), where the offensiveness carried out by the slur *faggot* should be attributed to Gianni, but not (necessarily) to the speaker who reports his words. Theories that view slurs as conveying offensiveness as a conventional implicature, on the other hand, would predict that also the person who reports a slur (uttered by another person) is being offensive towards homosexuals, since conventional implicatures exhibit independence (Potts 2005).

We believe that the intuitions about slurs’ scoping out behaviour can be checked by means of experimental studies. There have been several studies in the area of Social Psychology, whose aim was to verify the (perlocutionary) effects of utterance of slurs on the targeted groups (see, a.o., Carnaghi & Maas 2007 and Fasoli *et al.* 2013). Nevertheless, to our knowledge, the semantic questions and intuitions about slurs’ non-displaceability have not been tested yet (Spotorno & Bianchi 2015).

2. Study 1: Slurs’ offensiveness in linguistic contexts

We carried out a study whose principal goal is to establish the offensiveness of slurs in the linguistic contexts of negation, antecedent of conditionals, questions and indirect reports, and compare it to the perceived offensiveness of slurs in isolation. In particular, semantic theories of slurs would predict that the derogative force of slurs is suspended in these linguistic contexts; pragmatic approaches predict that slurs’ offensiveness survives under negation, in the antecedent of conditional, and in questions; presuppositional accounts of slurs expect slurs’ offensiveness not to be (necessarily) attributed to the person who reports a slur, whereas

accounts that view slurs as conventionally implicated predict the same level of offensiveness also in indirect reports.

We tested 132 (90 F) Italian undergraduate students, who volunteered to participate to the study, with a mean age of 23;5. The study consisted of four versions of a written questionnaire. The questionnaire comprised two parts. In the first one (Baseline), participants had to rate, on a 7-points scale, the offensiveness of 32 words presented in isolation. The instructions that were given to the participants are reported in (11):

- (11) We are interested in the study of the offensiveness of certain expressions. We are going to present you a list of words. For any of these words, please indicate how much you think that that word is offensive, using a scale that goes from 1 (“not at all offensive”) to 7 (“extremely offensive”).

The 32 words that were presented consisted in 8 slurs (SL); their 8 neutral counterparts (NC); 8 neutral/positive controls (PC); 8 bad words (BW), presented in a pseudorandom order. The items are presented in Table 1, with the Italian items used in the experiment, followed by their English translation or explanation.

SLURS (SL)	NEUTRAL (NC) COUNTERPARTS	POSITIVE CONTROLS (PC)	BAD WORDS (BW)
Frocio (<i>faggot</i>)	Omosessuale (<i>male homosexual</i>)	Oculista (<i>eye doctor</i>)	Coglione (<i>asshole</i>)
Negro (<i>nigger</i>)	Di colore (<i>colored</i>)	Castano (<i>hair brown</i>)	Testa di cazzo (<i>dickhead</i>)
Ciccione (<i>fatso</i>)	Sovrappeso (<i>overweight</i>)	Mancino (<i>left-handed</i>)	Stronzo (<i>turd</i>)
Musogiallo (<i>Chink</i>)	Cinese (<i>Chinese</i>)	Inquilino (<i>tenant</i>)	Bastardo (<i>bastard</i>)
Handicappato (<i>handicapped</i>)	Diversamente Abile (<i>disabled</i>)	Studente (<i>student</i>)	Deficiente (<i>moron</i>)
Terrone (slur for <i>Southern Italian</i>)	Meridionale (<i>Southern Italian</i>)	Adulto (<i>adult</i>)	Imbecille (<i>imbecile</i>)
Zitella (<i>spinster</i>)	Nubile (<i>nubile</i>)	Geometra (<i>surveyor</i>)	Idiota (<i>idiot</i>)
Crucco (<i>Kraut</i>)	Tedesco (<i>German</i>)	Ciclista (<i>cyclist</i>)	Stupido (<i>stupid</i>)

Table 1. List of the 32 items of the Baseline, divided in the four categories of slurs (SL), their neutral counterparts (NC), positive controls (PC), and bad words (BW)

In the second part of the questionnaire, Linguistic Context, participants were asked to rate, always on a 7-points scale, the offensiveness of a person who utters a sentence that contain a word (SL/NC/PC/BW) embedded under the linguistic contexts of negation (NEG), antecedent of a conditional (ANT), question (QUE), and indirect report (IND). The instructions given to the participants are provided in (12), and one example is given in (13).

- (12) Now, we ask you to do something slightly different. Imagine that you are, by chance, overhearing a conversation amongst persons you do not know. We ask you to indicate

2.1. Method

how much you think that **the person who is speaking** (that will be specified every time) has been offensive – always using a scale that goes from 1 (“not at all offensive”) to 7 (“extremely offensive”).

(13) **Claudio:** “Lino is not a faggot”

How much do you think that **Claudio** has been offensive?

1	2	3	4	5	6	7
Not at all offensive						Extremely offensive

2.2. Results

Results indicate that, in the Baseline, slurs and bad words are perceived as offensive, and overall the offensiveness of slurs and bad words is not statistically different. Neutral counterparts and positive controls, on the other hand, are not considered to be offensive. The results of the Baseline part of the questionnaire are plotted in Figure 1.

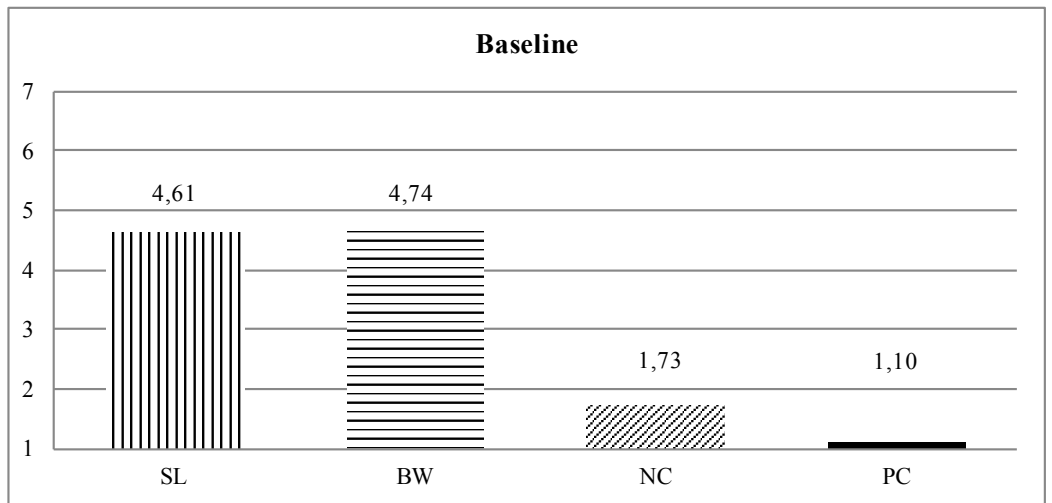


Figure 1. Average of the perceived offensiveness (on a 7-point scale) of the 32 words presented in isolation, grouped in the categories of slurs (SL, vertically striped), their neutral counterparts (NC, diagonally striped), positive controls (PC, black), and bad words (BW, horizontally striped).

We compared the offensiveness of slurs, bad words, neutral counterparts and positive controls in the baseline, to the perceived offensiveness of a person who utters a sentence that contains the same items, embedded in the linguistic contexts of negation (NEG), antecedent of conditionals (ANT), question (QUE) and indirect report (IND). We found that a person uttering a slur is perceived as being offensive even if the slur is embedded in a question or in the antecedent of a conditional; a person who reports the statement of someone else who used a slur is herself perceived as being offensive, but to a lesser degree; quite surprisingly, when a person utters the negation of a statement that contains a slur, she is not perceived as being particularly offensive. The degree of offensiveness of the slurs

in isolation (baseline) and of the person uttering a slur in the aforementioned linguistic contexts are reported in Figure 2.

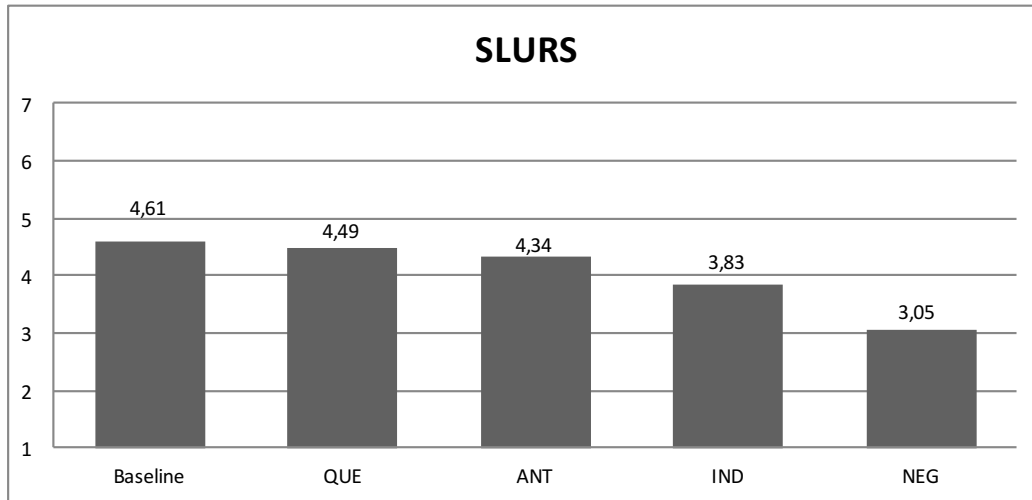


Figure 2. Average of the perceived offensiveness (on a 7-point scale) of the slurs in the baseline and in the linguistic contexts of questions (QUE); antecedent of conditionals (ANT); indirect reports (IND), and negation (NEG).

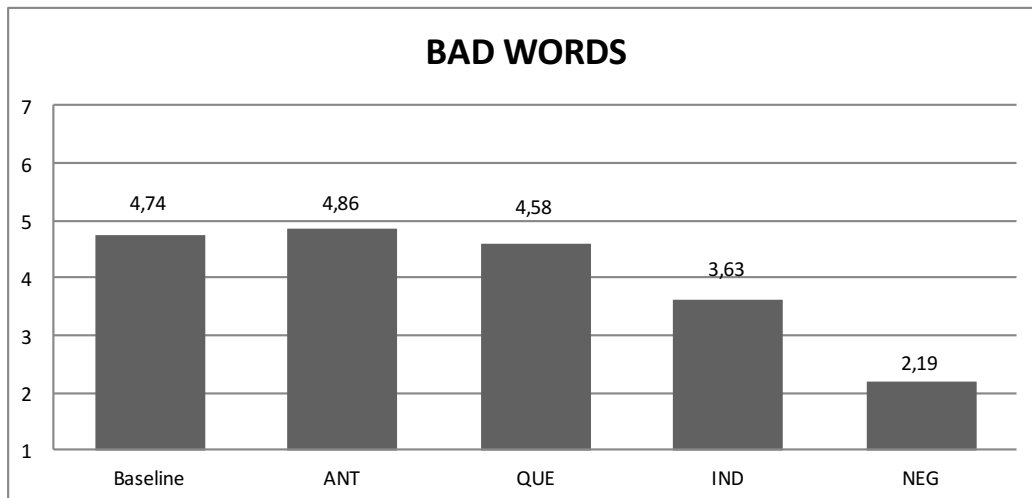


Figure 3. Average of the perceived offensiveness (on a 7-point scale) of the bad words in the baseline and in the linguistic contexts of antecedent of conditionals (ANT); questions (QUE); indirect reports (IND), and negation (NEG).

Bad words exhibit a somehow parallel behaviour, with their offensiveness scoping out from the linguistic contexts of antecedents of conditionals and questions, with indirect reports that

diminish, but not cancel the derogation of these words, and, again, with negation that almost nullifies the offensiveness of bad words. The results are presented in Figure 3.

2.3. Discussion We found that, as stated in the literature, the derogatory import of slurs scopes out from the linguistic contexts of antecedents of conditionals and questions, since a person who utters a slur that is embedded in one of these contexts is perceived as offensive as the slur in isolation. We did not get clear results on what happens in indirect reports, since the degree of offensiveness of a person who reports a slur uttered by someone else is perceived offensive to a lesser degree. Within a presuppositional approach to the meaning of slurs, this might be interpreted as indirect evidence that *verba dicendi* do constitute plugs (that is, they block the offensiveness of the slur, that is thus attributed only to the person who actually uttered the slur), and that the person who reports the slur uttered by someone else is felt to be less accomplice of the choice of that word.

The result we obtained for the linguistic context of negation is quite surprising, since all theories of slurs agree that negating a slur does not have an effect on its offensiveness, or, at least, that the level of perceived derogation (or squeamishness, in Hom's terms) should be the same as the one attested for conditionals and questions. In our experiment, on the other hand, we found that participants were rating the offensiveness of a person who utters a negation of a slur, as in the example given in (13), as only slightly offensive. Before discussing the results in the light of the theoretical approaches to slurs, we first need to provide a possible explanation for the unexpected result for negation.

We hypothesize that our participants might have interpreted the speaker's statement as a metalinguistic negation: asserting a negated proposition is an appropriated move when the purpose is to contradict what is (salient or) asserted by someone else; in that case, the negated statement could be interpreted as a correction of the expressive, derogatory component of the corresponding affirmative statement ("Marco is not a faggot, he is a homosexual"). We decided to test this hypothesis with a new test in which we elicit possible continuations of negated statements containing slurs, neutral counterparts, bad words, and positive controls.

3. Study 2: Negating a slur In this second study, we presented our participants with a negated statement, and we asked them to provide a continuation of that sentence. Our purpose was to test whether, and to what extent, the negation of a slur could be interpreted as a metalinguistic negation.

3.1. Method We tested a total of 100 Italian undergraduate students (76 F), with a mean age of 19;9 (18-52). The study consisted of two different versions of a written questionnaire. Participants had to provide a continuation of a total of 16 negated sentences. The instructions that were given to the participants are reported in (14):

- (14) We ask you to complete the following sentences, in such a way that they make sense. For instance, the following sentence:
 A. It is not raining in Milan, ...
 could be completed with these continuations:
 A1. It is not raining in Milan, it is sunny.
 A2. It is not raining in Milan, it is pouring down.
 A3. It is not raining in Milan, but in Rome it is.

Please note that one of the three possible continuations provided as an example, the one in A2, does constitute a metalinguistic negation (not raining, but pouring down), where we object to the choice of a less informative term (rain) and correct it with a stronger one (pour).

Nevertheless, this metalinguistic negation has to do with the strength of informativeness required, and not with the offensiveness of the terms.

The test items were the negation of 8 slurs, the same as those tested in the first study, except for the slurs *handicappato* (“handicapped”) and *ciccione* (“fatso”), that have been substituted with two other slurs: *sbirro* (“screw”, “pig”), the Italian offensive term to refer to police agents, and *strizzacervelli* (“headshrinker”), the pejorative version of psychoanalyst. We added as fillers the negation of 24 more items (the 8 neutral counterparts of the slurs, plus the positive controls and bad words used in the first study). We thus obtained a total of 32 negated sentences, which were divided in two different lists, containing 16 sentences each, in order to ensure that each list contained a slur but not its neutral counterpart.

The results were coded by two independent researcher, with the following criterion: the continuations were coded CON whenever they were negating the *content* of the predicate corresponding to the neutral counterpart; as NON-CON when the negation was referring to other aspects, but not involving the content; as IRR when the continuations were irrelevant. Examples of the first case CON are given in (15), provided as possible continuations of the sentence “Leo is not a faggot”:

- (15) a. He has a girlfriend.
b. He is just a little bit effeminate.

Please note that in both these cases the participant interpreted the negation in “Leo is not a faggot” as the denial of the fact that Leo belongs to the set of homosexuals.

Examples of the second class of NON-CON continuations are given in (16), always following the negated sentence “Leo is not a faggot”:

- (16) a. He is homosexual.
b. I don't like these expressions.

In those cases, the participants were not interpreting the negation as denying the fact that Leo belongs to the set of homosexuals, but they were objecting to the choice of the slurring expressions, and explicitly correcting that choice.

When the sentence to be continued contains a slur, the overall percentage of NON-CON continuations (that do not deny that the subject belong to the target group) is 33%, with a rather high variability: negated sentences with the slurs *musogiallo* (“chink”), *frocio* (“faggot”), and *negro* (“nigger”) are followed by more than 40% of NON-CON continuations (49%, 47% and 40%, respectively); the percentage of NON-CON continuations is between 20% and 30% for the slurs *strizzacervelli* (“headshrinker”, 30%), *sbirro* (“screw”, 27%), *zitella* (“spinster”, 27%), *crucco* (“Kraut”, 23%) and *terrone* (derogatory term for Southern Italian, 22%).

Even if these data are preliminary, there is an extremely high percentage of continuations that interpret the negation as referring not to fact that the subject belongs to the target group (the neutral counterpart), but to the offensiveness of the term (of the slur), especially for those terms that were rated as most offensive in the previous study. We believe that these continuations constitute interpretations of the preceding negated sentence as instances of a metalinguistic negation.

Coming back to the surprising results of the first study, we think that the fact that a person who was uttering a sentence of the form “x is not *slur*” was not considered as being offensive, could be explained assuming that the participants were interpreting that sentence as an instance of a metalinguistic negation, that is not indeed offensive.

3.2. Results and discussion

4. Conclusions Assuming that at least some of the participants to the first study rated a person who was uttering the negation of slurs as not offensive because they were interpreting the sentence as an instance of a metalinguistic negation, we can conjecture that even “ordinary” negated slurs are perceived as offensive.

Coming back to the predictions made by the various approaches to the meaning of slurs, we believe that our results favour a pragmatic account on slurs, and, in particular, the fact that a person who reports a slur is perceived as less offensive than a person who uses a slur in a conditional or in a question is more easily accounted for within a presuppositional account on slurs.

For reasons of space, we could not further explore the parallelism between slurs and simple pejoratives: it is quite surprising that pejoratives seem to exhibit a behaviour analogous to slurs when they are embedded within a conditional, a question and an indirect report, whereas when they are negated they lose their offensiveness – a fact for which we do not have a principled explanation for.

We are aware that the studies we presented present some shortcomings: the participants are not at all representative (they are all undergraduate students, mostly from the same area, the northern part of Italy); more importantly, the experimental design presented the sentences to be evaluated as offensive out of context: the motivation behind this choice was to focus the participants’ attention only to the perceived offensiveness of the slur *per se*, in the various contexts. Nevertheless, we are aware of the fact that there are in-group uses of slurs, and that slurs can also be used in an ironic or metaphorical sense, and we couldn’t control for our participants’ actual interpretation of the intended context in which slurs were used. Still, we believe that scholars’ intuitions about the offensiveness of slurs need to be checked with experimental studies.

REFERENCES

- Anderson, L., and Lepore, E. (2013a), “Slurring Words”, *Nous*, 47(1), pp. 25-48;
- Anderson, L., and Lepore, E. (2013b), “What did you call me? Slurs as prohibited words”, *Analytic Philosophy*, 54(3), pp. 350-363;
- Carnaghi, A., and Maass, A. (2007), “In-Group and Out-Group Perspectives in the Use of Derogatory Group Labels Gay Versus Fag”, *Journal of Language and Social Psychology*, 26(2), pp. 142-156;
- Cepollaro, B. (2015), “In defence of a presuppositional account of slurs”, *Language Sciences*, 52, pp. 36-45;
- Croom, A. M. (2011), “Slurs”, *Language Sciences*, 33(3), pp. 343-358;
- Croom, A. M. (2013), “How to do things with slurs: Studies in the way of derogatory words”, *Language & Communication*, 33(3), pp. 177-204;
- Croom, A. M. (2014), “The semantics of slurs: a refutation of pure expressivism”, *Language Sciences*, 41, pp. 227-242;
- Fasoli, F., Paladino, M. P., and Carnaghi, A. (2013), “Le conseguenze del linguaggio omofobo su omosessuali ed eterosessuali”, *Psicologia sociale*, 8(2), pp. 177-192;
- Hedger, J. A. (2012), “The semantics of racial slurs: using Kaplan’s framework to provide a theory of the meaning of derogatory epithets”, *Linguistic and Philosophical Investigations*, 11, pp. 74-84;
- Hom, C. (2008), “The semantics of racial epithets”, *The Journal of Philosophy*, 105, pp. 416-440;
- Hom, C. (2010), “Pejoratives”, *Philosophy Compass*, 5(2), pp. 164-185;
- Hom, C., and May, R. (2013), “Moral and semantic innocence”, *Analytic Philosophy*, 54(3), pp. 293-313;
- Hornsby, J. (2001), “Meaning and uselessness: how to think about derogatory words”, *Midwest Studies in Philosophy*, 25, pp. 128-141;

- Jeshion, R. (2013), "Slurs and stereotypes", *Analytic Philosophy*, 54(3), pp. 314-329;
- Karttunen, L. (1973), "Presuppositions of compound sentences", *Linguistic inquiry*, 4(2), pp. 169-193;
- Kennedy, R. L. (2008), *Nigger: The strange career of a troublesome word*, Pantheon, New York;
- Kratzer, A. (1999), "Beyond ouch and oops: How descriptive and expressive meaning interact", Available from Semantics Archive;
- Maciá, J. (2002), "Presuposición y significado expresivo", *Theoria. Revista de Teoría, Historia y Fundamentos de la Ciencia*, 17(3), pp. 499-513;
- McCready, E. S. (2010), "Varieties of conventional implicature", *Semantics and Pragmatics*, 3, 8, pp. 1-57;
- Potts, C. (2007), "The expressive dimension", *Theoretical linguistics* 33(2), pp. 165-198;
- Potts, C. (2012), "Conventional implicature and expressive content", In Maienborn, C., von Stechow, K., and Portner, P. (eds.), *Semantics: An International Handbook of Natural Language Meaning*, DeGruyter 3, pp. 2516–2536;
- Schlenker, P. (2007), "Expressive presuppositions", *Theoretical Linguistics*, 33(2), pp. 237-245;
- Spotorno, N. and Bianchi, C. (2015), "A plea for an experimental approach on slurs", *Language Sciences*, 52, pp. 241-250;
- Williamson, T. (2009), "Reference, inference and the semantics of pejoratives", In Almog, J., and Leonardi, P. (eds.) *The Philosophy of David Kaplan*, Oxford University Press, Oxford, pp. 137-158.