Language Sciences 52 (2015) 241–250

Contents lists available at ScienceDirect

Language Sciences

journal homepage: www.elsevier.com/locate/langsci

A plea for an experimental approach on slurs

Nicola Spotorno [a,*], Claudia Bianchi [b]

[a] University of Pennsylvania, Perelman School of Medicine, Penn Frontotemporal Degeneration Center, Philadelphia, PA 19104, USA
[b] Faculty of Philosophy, Vita-Salute San Raffaele University, via Olgettina 58, 20132 Milano, Italy

ARTICLE INFO

Article history:
Available online 31 May 2015

Keywords:
Slurs
Derogatory language
Social cognition
Language processing

ABSTRACT

The aim of our paper is to provide the reader with a sort of *vademecum* on the possibilities and the limits of an experimental approach to the study of slurs and derogatory language. We distinguish between off-line and on-line studies and underline the advantages and constraints of both methodologies. Empirical studies have already contributed to the investigation of slurs, at least as far as off-line experiments are concerned: we argue that on-line techniques might also provide interesting insights, but only to the extent to which one can derive predictions about the *processing* of slurs from the theories under investigation. We provide the example of two theoretical debates in which an on-line approach may prove useful in assessing various hypotheses – namely the content-based/non content-based dispute and the echoic approach to slurs. In closing we suggest an alternative domain in which experimental research and theoretical investigation on slurs might fruitfully interact: cognitive and affective neuroscience, and more particularly the investigation of how our cognitive system handles negative stimuli. Slurs may be seen as a prototype of aggressive behavior concentrated in a few words: therefore they are well suited for testing the reactions of our brain and peripheral nervous system to verbal aggression.

1. Introduction

Derogatory language is a key topic in various fields ranging from linguistics and philosophy of language to anthropology, sociology, critical race theory and legal theory. Some disciplines, such as anthropology, are empirical by definition and require data to develop their theories; others, like philosophy, have traditionally been based more on rational arguments than on empirical data. However, philosophy of language and linguistics now have a well-established dialog with experimental research, with a vast array of dedicated conferences, journals and societies. Of course, this fruitful interaction in no ways implies that experiments are the answer to all possible questions. The aim of the present paper is to provide the reader with a sort of *vademecum* on the possibilities and the limits of an experimental approach to the study of slurs and derogatory language. Our paper is structured as follows. In Section 2 we offer a broad description of the experimental research we will refer to: we distinguish between off-line and on-line studies and underline the advantages and constraints of both methodologies. In Section 3 we examine some testing grounds in the field of derogatory language in order to investigate the extent to which experiments might or might not contribute to the theoretical investigation. In Section 4 we suggest an alternative

* Corresponding author. University of Pennsylvania, Perelman School of Medicine, Frontotemporal Degeneration Center, 3400 Spruce Street, 3 West Gates Building, Philadelphia, PA 19104, USA. Tel.: +1 215 829 7915; fax: +1 215 829 6606.
E-mail address: spotorno@mail.med.upenn.edu (N. Spotorno).

http://dx.doi.org/10.1016/j.langsci.2015.04.004
0388-0001/

domain in which experimental research and theoretical investigation on slurs might interact: cognitive and affective neuroscience, and more particularly the investigation of how our cognitive system processes aggressive verbal behavior.

2. Experimental research: off-line vs. on-line experiments

"Empirical research" is a broad definition referring to any investigation based on the acquisition and analysis of some sort of data. For the purposes of the present work we will divide empirical research into two categories: off-line experiments and on-line experiments.

2.1. Off-line experiments

The label "off-line experiments" brings together all the studies based on techniques like questionnaires, semi-structured interviews, analysis of free speech samples and corpora-based research. The main purpose of these kinds of studies in investigating derogatory language is to collect evidence about the *context* in which speakers use slurs, the frequency with which these expressions occur during daily conversations and the *conscious* reaction of people to them. Off-line studies have at least two great advantages over on-line experiments.

i) First, off-line studies allow researchers to test their hypotheses over data acquired in a highly naturalistic manner. No laboratory setup can reproduce the conditions of a real conversation between two co-workers, or the collection of letters exchanged between two people over the course of several years. Consider, for example, the study conducted by David Embrick and Kasey Henricks (Embrick and Henricks, 2013) on the use of stereotypes and slurs in the workplace. The authors recorded conversations and collected notes for six months during normal working hours in a baked-goods company in the south-western United States. In addition, they also conducted semi-structured interviews with workers, supervisors, and lower level managers working for the same company. This kind of research provides authors with rich and ecologically valid datasets against which to test their hypotheses. At least at the current state of the art, no on-line measure can be acquired in such close contact with a complex social situation.

ii) The second major advantage of off-line studies is the possibility of collecting and analyzing huge datasets of information from different sources. For example, Beaton and Washington (Beaton and Washington, 2014, present issue) collected data from blogs, videos, newspapers and other sources to derive lexical indexical values for the Brazilian Portuguese term *favelado* (which can be roughly translated as "slum-dweller": see Beaton and Washington's contribution to the present issue for more details). Again, on-line experiments must respect physical and economic constraints that make it virtually impossible to collect the same amount of data.

2.2. On-line experiments

The limitations of off-line studies correspond largely to the strong points of on-line studies. In this context we label as "on-line" all the studies based on measures that provide some insight into the activity of our cognitive systems while we are performing a task. In this category we can therefore include studies measuring reading times, reaction times, basic physiological reactions such as gaze directions, breath and heart rate, and more technologically "heavy" paradigms based on neuroimaging techniques like fMRI (functional magnetic resonance) and EEG (electroencephalography). A detailed survey of both the advantages and limits of the specific techniques is beyond the scope of the present paper (see e.g., Carreiras and Clifton, 2004; Poldrack et al., 2011; Van Berkum, 2012): in this context it is important to underline that, while neuroimaging techniques provide (indirect) measures of the neural mechanisms underlying our cognitive processes, they also come with severe limitations in terms of portability, cost, and other physical constraints.

The main advantage of all on-line techniques is that they may shed light on what is "happening" inside the locked room of the mind of someone confronted with uses of slurs. A great body of research has used taboo words and emotional charged words as well as other kinds of emotional charged stimuli, like faces, in order to study the impact of emotion-processing on attention, memory and language understanding (see e.g., Adolphs et al., 2000; Buchanan et al., 2006; Costafreda et al., 2008; Jay et al., 2008; Kensinger and Corkin, 2003; Phelps, 2006; Wentura et al., 2000). For example, several researches showed that taboo words are easier to remember than non-taboo words and they have suggested that the emotional arousal attached to the taboo words makes them easier to retrieve (e.g., Anderson and Phelps, 2001, 2002; Anderson, 2005; Kensinger and Corkin, 2003, 2004; Sharot and Phelps, 2004). Additionally, Kensinger and Corkin (e.g., 2003, 2004) suggest that partially non-overlapping networks process arousing taboo words and non-emotional words at the neural level.

To the best of our knowledge there are no on-line studies on the processing of slurs in the context of investigations driven by linguistic-pragmatic theories. However, much work has been done in studying the interface between semantic and pragmatics as well as the cognitive-neural processing of pragmatic phenomena. Our aim is to show the role that experiments designed along similar lines could play in an analysis of slurs – and, more crucially, some of the constraints they could face.

A fairly long tradition of studies has investigated the integration of contextual and world knowledge information into the comprehension process of a sentence (Hagoort et al., 2004; Nieuwland and Van Berkum, 2006; Otten and Van Berkum, 2007; Van Berkum et al., 1999). To give an example, Hagoort and colleagues (Hagoort et al., 2004) presented participants with sentences like (1) and (2) while the electrical activity of their brain was recorded (EEG):