

# How something can be said about telling more than we can know: On choice blindness and introspection

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## Abstract

The legacy of Nisbett and Wilson's classic article, *Telling More Than We Can Know: Verbal Reports on Mental Processes* (1977), is mixed. It is perhaps the most cited article in the recent history of consciousness studies, yet no empirical research program currently exists that continues the work presented in the article. To remedy this, we have introduced an experimental paradigm we call choice blindness [Johansson, P., Hall, L., Sikström, S., & Olsson, A. (2005). Failure to detect mismatches between intention and outcome in a simple decision task. *Science*, 310(5745), 116–119.]. In the choice blindness paradigm participants fail to notice mismatches between their intended choice and the outcome they are presented with, while nevertheless offering introspectively derived reasons for why they chose the way they did. In this article, we use word-frequency and latent semantic analysis (LSA) to investigate a corpus of introspective reports collected within the choice blindness paradigm. We contrast the introspective reasons given in non-manipulated vs. manipulated trials, but find very few differences between these two groups of reports.

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## 1. Introduction

Nearly, thirty years have passed since the publication of Nisbett and Wilson's seminal article *Telling More Than We Can Know: Verbal Reports on Mental Processes* (1977). Arguably, this article is one of the most widely spread and cited works on the nature of introspection ever to be published. As of May 2006, according to the ISI Web of Science Index, Nisbett and Wilson (1977) have been cited an astonishing 2633 times.<sup>1</sup>

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<sup>1</sup> To put these numbers in perspective it is more than five times as many citations as that gathered by Thomas Nagel's classic essay "What is it like to be a bat?" (1974), nearly ten times as many as that given to any of Benjamin Libet's famous articles on the subjective timing of conscious will, and more than twice as many as the combined cites given to all the articles that have appeared in the *Journal of Consciousness Studies* and in *Consciousness and Cognition* during the last ten years.

No doubt there are many reasons for these extraordinary citation numbers. The comprehensive and accessible review of N&W has long held an attraction for applied researchers dealing with different forms of verbal report. These citations come from the most diverse fields of research: nursing studies, human–computer interface design, demography, psychotherapy, sports psychology, etc.<sup>2</sup> More specifically, N&W has become part of the “checks and balances” of survey and consumer research, as a basic item that must be considered, like experimental demand effects, or the possibility of sampling error (Schwarz & Oyserman, 2001).

Yet, despite this, no systematic empirical research program exists that carry on the pioneering work of N&W. It is a piece everybody seems to return to, but hardly anybody tries to improve upon. Buried in the mass of citations one can find a group of articles from the eighties that strove to advance the methodology of N&W (see, e.g., Guerin & Innes, 1981; Morris, 1981; Quattrone, 1985; Sabini & Silver, 1981; Sprangers, Vandenbrink, Vanheerden, & Hoogstraten, 1987), but the output from this initiative is all but invisible in the current debate. Despite the prolific work of Wilson himself, who has taken the general idea of lack of introspective access in several new directions (e.g., Wilson, 2002; Wilson & Kraft, 1993; Wilson, Laser, & Stone, 1982; Wilson, Lindsey, & Schooler, 2000), the empirical debate about N&W soon came to a standstill, with multiple layers of inconclusiveness confusing just about everyone involved (as meticulously summarized by White (1988) in his tenth anniversary review of N&W).

Consequently, then, when a scholarly reviewer like Goldman (2004) discusses the epistemic status of introspective reports, he feels the need to address (and refute) the 27-year-old “challenge from Nisbett and Wilson,” rather than some red-hot contemporary alternative.

It is ironic that the exemplary structure of the original article might be partly to blame for this lack of development. N&W not only tried to show experimentally that “there may be little or no direct access to higher order cognitive processes” (1977, p. 231), but they also tried to present an explicit framework for future studies, and a fully fledged alternative theory about the origins of introspective reports (thereby taking upon themselves a burden of explanation that most researchers would shun like the plague).<sup>3</sup> Their basic idea was that the accuracy of introspective reports could be determined by comparing the reports of participants in the experiments to those of a control group who were given a general description of the situation and asked to predict how the participants would react—the so-called *actor–observer* paradigm (Nisbett & Bellows, 1977). If actors consistently gave more accurate reports about the reasons for their behavior than observers did, then this would indicate privileged sources of information underlying these reports. If not, then the position of N&W would be further supported.

Unfortunately, as is shown by the contributions of White (1988) and others (e.g., Gavanski & Hoffman, 1986; Kraut & Lewis, 1982; Wilson & Stone, 1985; Wright & Rip, 1981), it is an exceedingly complex task to unravel all the possible influences on report in an actor–observer paradigm (and this was *before* the whole simulation vs. theory–theory debate got started, which complicates things even further, see Rakover (1983) for an early hint of this debate to come). White (1987) writes:

In [its] original form the proposal [of N&W] foundered, largely because it is at present untestable. It is difficult if not impossible to ascertain the nature and extent of involvement of “introspective access,” whatever that is, in the generation of causal reports, and one cannot assume a straightforward relationship between “introspective access” and report accuracy. In addition, a valid distinction between “process” and “content” or “product” has yet to be pinned down, despite some attempts to do so. Given these problems, the proposal effectively degenerated into a simpler hypothesis that causal report accuracy cannot be significantly enhanced by information about relevant mental activity between stimulus and response. As we have seen, tests of this hypothesis have so far proved inconclusive. But to continue refining such tests with the aspiration of good internal validity is likely to prove an empty methodological exercise (p. 313).

<sup>2</sup> See for example Brewer, Linder, Vanraalte, and Vanraalte, 1991; Higuchi and Donald, 2002; Jopling, 2001; Jorgensen, 1990; Sandberg, 2005.

<sup>3</sup> It would seem incumbent on one who takes a position that denies the possibility of introspective access to higher order processes to account for these reports by specifying their source. If it is not direct introspective access to a memory of the processes involved, what is the source of such verbal reports? (Nisbett & Wilson, 1977, p. 232).

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