

## Abstract: On the objectivity of nutrition research and advice

The aims of this paper are to offer an account for evaluating the objectivity of nutrition research and advice and to name some ways in which the objectivity of these fields can be threatened. I shall present an account according to which objectivity can be damaged by so-called extra-scientific factors.

Objectivity is one of the main ideals of science. It is something we should aim at if we want to acquire reliable knowledge, i.e. knowledge that can be used for guiding actions in this complex world. But what is objectivity and what are its conditions? Recently philosophers of science have been active in examining and developing accounts of objectivity that can be used for assessing scientific practices (e.g., Douglas 2004; Daston & Galison 2007; Gelman & Hennig 2017). These accounts have demonstrated not only that the notion of objectivity can take many forms but also that different understandings of what objectivity denotes can have practical implications as they guide our actions. Consequently, it is important to be clear on what account one is committed to while evaluating scientific practices.

In nutrition advice, the results of nutrition science are translated into recommendations, for instance Dietary Guidelines for Americans, which are meant to improve the health of the general public and to prevent chronic diseases. Recently the trustworthiness of nutrition advice has been questioned by critics who accuse established nutrition experts of having conflicts of interests and their research being biased. These critics “are committed to the ideal of independent science, according to which researchers should be free from outside influences and the best argument should win” (Jauho 2014, 11). Apparent conflicts of interests are common in nutrition research, as big part of the field is funded by industry (e.g., Lesser et al. 2007). However, despite the identified problems with commercialized research, it would be much too simple to state that industry funding is a sign of research being biased. There are examples of sound, high-class privately funded research (cf. Shapin 2008). Moreover, recently philosophers of science have argued against the value-free ideal of science: we should not assume that science should, or could, be free of so-called non-epistemic values (e.g., Longino 1990; Douglas 2009). It is acceptable that political, social, or even commercial values and interests have an impact on research, and the presence of these non-epistemic motivations can be beneficial to science by creating more diverse research environments (Carrier 2010). But how to demarcate the acceptable influence of commercial, political or social values from unacceptable?

I shall argue that in order to evaluate the trustworthiness of nutrition research and policy, we need an account of objectivity that includes the institutional conditions of research. By presenting examples from research on the relationship between sugar and health, I show that what is sometimes called the discovery side of science needs to be considered when knowledge production is evaluated. This is because the way in which research projects and questions are framed has a critical effect on the way in which science portrays the world. Thus, examinations of the conditions for objectivity should not focus solely on the conditions for justification procedures (for example, in the case of nutrition research, on how trials and observational studies are carried out) while disregarding the ways in which research can be skewed by defects that stem from extra-scientific factors.