The definition of an argument given by M&S is standard: A set of statements, one of which is the conclusion, which is supposed to be epistemically supported by the other statements, called the premises. The content of an argument refers to the propositions that are expressed by the premises and conclusion, whereas the structure of the argument refers to the way the premises work together to support the conclusion. Successfully understanding an argument consists in being able to identify both the content and the structure of the argument: the conclusion, the premises, and the particular way the premises support the conclusion (e.g., whether the premises are linked or convergent). Successfully evaluating an argument consists in being able to assess the content (i.e., determine whether the premises are true) and the structure (i.e., determine whether, assuming that they are true, the premises actually do support the conclusion). Finally, successfully constructing an argument consists in being able to supply true premises and specify how those premises work together to support the conclusion. Although structure and content are both relevant for all three activities, they are relevant in different ways, and so great care is required (but not always taken) in designing experimental tasks that appropriately test them.

Problematic empirical evidence arises for all three: argument understanding, argument evaluation, and argument production. For the first process, there actually seems to be scant research in the area of argument understanding. For the second, the research that does exist in this area is mixed. Some studies (e.g., Rico 2003, cited by M&S) suggest that for simple arguments, adults can, when prompted, differentiate between linked and convergent arguments. Other studies, however, suggest that, even for simple arguments, untrained college students can identify the conclusion but without prompting are poor at both identifying the premises and how the premises support the conclusion (Harrell 2006; 2008; 2011).

Second, argument evaluation is usually loosely, and only implicitly, defined as being able either to identify reasoning fallacies or to differentiate reasonable arguments from unreasonable ones. The research on argument evaluation seems mixed, at best. In particular, a number of systematic biases have been found. When witnessing an argument from the outside, participants’ judgment of the burden of proof depends on who speaks first (Baileson & Rips 1996, cited by M&S), and participants routinely mistake innocuous repetition for circularity (Rips 2002, cited by M&S).

When participating in an argument themselves, participants tend to reason less well than when witnessing an argument (Neuman et al. 2006; Thompson et al. 2005b; both cited by M&S). Finally, in many of these studies, the perception by the researchers that participants were able to “build complex arguments” (sect. 2.2, para. 3) is vague or ambiguous. Producing an argument is importantly different from, for example, mere fact gathering, but the research focuses almost exclusively on nothing more complex than the listing of reasons to believe. Even for this simple kind of argument production, studies suggest that both low- and high-cognitive-ability participants have difficulty producing evidence for a claim (Sá et al. 2005, cited by M&S). Contrary to the claims by M&S, a wide literature supports the contention that the particular skills of understanding, evaluating, and producing arguments are generally poor in the population of people who have not had specific training and that specific training is what improves these skills. Some studies, for example, show that students perform significantly better on reasoning tasks only when they have learned to identify premises and conclusions (Shaw 1996, cited by M&S) or have learned some standard argumentation norms (Weinstock et al. 2004, cited by M&S). M&S may be correct that some of these negative results arise because the stakes are too low, but many studies that show improvements from specific training occur in high-stakes environments like a college course (Harrell 2011; Twardy 2004; van Gelder 2005; van Gelder et al. 2004). This suggests that difficulty with understanding, evaluating, and producing arguments may be a deeper feature of our cognition.
some aspect of the world, followed by formulation of hypotheses that are tested and immediately abandoned if disconfirmed by data. I propose that the following account is more accurate.

Research for professional reasoners begins with an emotional attraction to certain ideas, an attraction Tomkins (1968) called “ideo-affective resonance.” This emotional resonance can cause scientists to cling tenaciously to ideas, even in the face of counter-evidence. In some ways, science resembles legal proceedings in which the very best case for guilt or innocence is presented by uncompromising prosecuting and defense attorneys, respectively. Scientists who resonate to different views clash in conferences and in journals. Each seeks to convince others that he or she is correct. M&S review research indicating that when members of groups holding disparate views debate, each arguing for a different view, “truth wins” (sect. 2.3, para. 1). Perhaps truth does win often enough in jury trials and scientific debates, but as we all know, sometimes it does not. M&S might be expressing unwarranted optimism here.

I want to close my commentary with some observations about moral reasoning. Research by Haidt (2001), mentioned by M&S, and by Joshua Greene (2003) strongly supports a dual-process model wherein people instantaneously decide if an act is “good” and therefore something we “ought” to do by taking note of the immediate, reflexive feelings that emerge when thinking about the act. In the second stage of the dual process, they may attempt to defend their feelings in terms of rational argument. Professional philosophers are much better at the reasoning part of the process, but are still guided initially by emotional reflexes. The immediacy and inevitability of certain emotions (e.g., revulsion on contemplating the torture of a child) can lead philosophers and nonphilosophers alike into making pronouncements such as “That we ought to refrain from torturing children is a moral truth.”

But only propositions about what is the case can be true or false. Moral pronouncements express reflexive feelings about how we ought to behave and are therefore not truth-apt. “Moral truth” is a category mistake. I have a yet-intested two-part hypothesis about why so many people (including moral philosophers) make this apparent category mistake (Johnson 2007). First, human beings are prone to mistakenly assuming that when they feel a strong and immediate emotion, this is a reliable sign of a self-evident truth. Second, although moral systems evolved because they conferred benefits on all participants (compare M&S’s observation that persuasive communication must be sufficiently beneficial to both parties, else the capacity for being persuaded would be selected against and go out of existence), the propensity of a person to be responsive to moral “oughts” can be exploited by someone who benefits at that person’s expense. Compare, for example, the persuasiveness of “Give me ten percent of your money because I want it” with “That we have a duty to tithe to the church is a venerable moral truth.” Scrutiny of any rhetorical effort is wise, particularly those in the moral domain.

True to the power of one? Cognition, argument, and reasoning

doi:10.1017/S0140525X10002992

Drew Michael Khlentzos and Bruce Stevenson
Language and Cognition Research Centre, Psychology, School of Behavioural, Cognitive and Social Sciences, University of New England, Armidale 2351, Australia.
dkhlentz@une.edu.au bstevens@une.edu.au

Abstract: While impressed by much of what Mercier & Sperber (M&S) offer through their argumentative hypothesis, we question whether