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Short communication

Bury the inner hatchet: Complex propositions mediate the relationship of potentially discrepant implicit and explicit attitudes on doping intention

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ABSTRACT

Introducing a dual-process approach, this study extends research on the psychology of doping by considering discrepancies between athletes' explicit and implicit evaluations of doping and the way they are cognitively resolved. Framing our hypotheses in terms of the associative-propositional evaluation model, we tested the mediating role of an exemplary extra-propositional process (moral disengagement) on the relationship between discrepant implicit and explicit evaluations and the intention to dope. Eighty participants (62 male; 16.87 ± 1.62 years) worked through a reaction time-based test to assess their implicit evaluations of doping (associative process). Questionnaires were used to assess their explicit evaluations, moral disengagement and intentions. The results support our hypothesis and reveal a significant indirect effect for the mediation path on the relationship between discrepant evaluations and intention. This study illustrates one fundamental cognitive mechanism of doping-related information processing within an athlete's doping mind-set. Future research should focus the interaction between implicit and explicit processes and its impact on doping intention and behaviour.

1. Introduction

"It didn't feel wrong" is one of the excuses offered by seven-time Tour de France winner Lance Armstrong during his doping confession on the Oprah Winfrey Show, broadcast by ABC-TV in January 2013. Throughout the course of his career, Armstrong verbally denied the use of prohibited performance-enhancing substances and could have made the statement, "Doping is wrong" at any possible occasion. The contradiction between Armstrong's affective or 'gut' evaluation of his own behaviour and his reported verbal judgement of doping serves to illustrate that there sometimes exists a disconnection between spontaneous evaluative reactions and more reasoned evaluative judgements. This study illustrates the fact that complex social cognitive operations are needed to resolve conflicting evaluations of a behaviour, and that the way in which eventual discrepancies are resolved may be predictive for subsequent doping intentions. It informs researchers about fundamental cognitive processes underlying doping-related behaviour change and potential mechanisms of effective doping prevention.

In the past few years, the psychological research on doping has progressed tremendously in identifying and testing the predictive power of potential social cognitive predictors. Variables such as athletes' attitudes and norms, their self-efficacy to refrain from doping and morality have successfully been used to predict doping intention and behaviour (Ntoumanis, Ng, Barkoukis, & Backhouse, 2014). Particularly attitudes towards doping have been identified as an important variable in an athlete's decision for or against doping in both qualitative and quantitative research (Backhouse & McKenna, 2011; Erickson, McKenna, & Backhouse, 2015; Lentillon-Kaestner, Hagger, & Hardcastle, 2012; Morente-Sánchez & Zabala, 2013). At the core of the psychological definition of attitude is the stipulation that it fulfils an evaluative task in assessing objects and persons (Olson & Zanna, 1993). The research interest in doping attitudes, i.e. athletes' evaluative reactions to doping-related stimuli, is supposedly actuated by the empirical fact that this construct could be successfully integrated into well-evidenced psychosocial theories to predict behaviour and especially behavioural change (e.g. Ajzen, 1991; Fazio, 1990). This prioritization of doping attitudes and its related social cognitive predictors in doping research has been accompanied by a focus on thought content, however,

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whereas it neglects analyses of the fundamental psychological principles of how this information is cognitively processed. Referring to our introductory example, there has been no sport psychology research published on cognitive processes that highlight the interaction between e.g., the immediate evaluative reaction to a given behaviour and one's reasoned evaluation of the same behaviour. Whether and how such discrepancies are resolved and how they might affect behaviour and behavioural change are interesting issues in the context of doping in sports. It could help us to understand, for example, why up to 50% of elite athletes have been suspected of using prohibited performance-enhancing drugs or methods (Ulrich et al., 2015).

We begin from a dual-process theory of social cognition and investigate the dynamic interplay of explicit–implicit evaluation discrepancies (EIEDs), further propositional processes and the intention to dope. This approach serves to illustrate a cognitive mechanism which is relevant to understanding an athlete's considerations about whether or not to use a doping substance.

1.1. A dual-process perspective on explicit–implicit evaluation discrepancies

At their most general, dual-process theories assume that motivated behaviour is rooted in two different kinds of thinking: fast and automatic processes that are often emotionally charged, and slower, reasoned processes that are more likely to be consciously monitored (Evans & Stanovich, 2013; Kahneman, 2003). The issue of whether or not it is necessary to assume two separate systems is contentious (Kruglanski, Erb, Pierro, Mannetti, & Chun, 2006). The more fundamental distinction between more and less conscious information processing remains one of the most widely recognized in social cognition, however (Evans, 2008).

Dual-processing theory has already been applied to attitudinal processes (e.g. Fazio, 1990). In our study we opted for the associative-propositional evaluation (APE) model (Gawronski & Bodenhausen, 2006), as it provides a more general theoretical account of the cognitive mechanisms underlying attitudinal evaluations and emphasizes possible interplays between immediate affective reactions and evaluative judgements, i.e. implicit and explicit evaluations, respectively.

The APE model defines associative processes as the activation of mental associations. These patterns of available memory representations activated by a particular stimulus are independent of their truth value, i.e. measurable implicit evaluations can be activated irrespective of whether the individual considers them appropriate or inappropriate. Propositional processes validate these associations. Verbal judgements derived from subjective syllogistic inferences based on the perceived truth value of propositions can be measured as explicit evaluations of attitude objects.

Consider, for example, an athlete thinking about a relevant substance (e.g. an anabolic agent). This substance will trigger stored mental associations (e.g. 'can be administered easily'; 'enhances performance') and may result in a positive automatic affective reaction ('I like doping'). At the same time, relevant values (e.g. 'positive evaluations of doping are wrong') and knowledge (e.g. 'anabolic agents are on the World Anti-Doping Agency's list of prohibited substances') form valid object-relevant propositions. Collectively, these propositions may result in a contradictory evaluative judgement (in this instance, a reasoned negative evaluation of doping). Moreover, if additional triggered propositional evaluations of other objects (e.g. 'cheating is wrong') and non-evaluative propositions (e.g. 'doping is cheating') are inconsistent with the initial affective reaction, the result is an unresolved EIED (Gawronski & Bodenhausen, 2011).

Research has shown that EIEDs lead to additional information processing (Rydell, McConnell, & Mackie, 2008). This consequence implies that relevant higher-order cognitive operations (i.e. further propositions) are required to resolve evaluation discrepancies (Gawronski & Bodenhausen, 2006). Such a mechanism is hypothesized to mediate the effect of EIED on behaviour. Evidence has been provided showing that discrepancies can lead to irrational behaviour (Goldstein et al., 2014; Laws & Rivera, 2012), suggesting that these additional reflections sometimes deviate from one's personal or commonly accepted moral standards. Doping, for example, contradicts the spirit of sport (World Anti-Doping Agency, 2015). Although there has been a shift in research towards emphasizing the performance-enhancing nature of doping, morality still plays a decisive role in explaining this behaviour (Petróczi, 2014). Doping, the act of using forbidden performance-enhancing substances in competitive sports, might trigger conflicting explicit (e.g. 'doping is prohibited') and implicit (e.g. 'doping is necessary to compete successfully', 'I like doping') evaluations. We propose, for example, that moral standards associated with doping can resolve resulting discrepancies. Propositions such as 'one cannot blame me for doping because so many athletes do it' morally justify doping, reinforce positive implicit evaluations of doping, help to devalue negative explicit evaluations, and consequently lead to the intention to use doping substances.

1.2. Social cognitive predictors of doping

To date, most social cognitive research on the psychology of doping has relied on questionnaire-based assessments or interviews. Such methodological approaches reflect the propositional processes related to social cognitive predictors of doping. The extent to which these propositions, i.e. these social cognitively modelled mental processes alone, influence subsequent doping behaviour is a contentious issue (Kirby, Guerin, Moran, & Matthews, 2015). However, there is robust evidence that changing social cognitive variables such as attitude through intervention is closely connected to health behaviour change (McEachan, Conner, Taylor, & Lawton, 2011), and that athletes' explicit attitudes towards doping are among the strongest social cognitive predictors of doping-related intentions and behaviour (Ntoumanis et al., 2014). Norms (Wiefferink, Detmar, Coumans, Vogels, & Paulussen, 2008), self-efficacy (Zelli, Mallia, & Lucidi, 2010), perceived behavioural control (Chan et al., 2015), situational temptation (Barkoukis, Lazuras, Tsorbatzoudis, & Rodafinos, 2013) and, most important for the present study, moral disengagement (Lucidi et al., 2008; Zelli et al., 2010) have been identified as other proximal predictors of the intention to dope.

Moral disengagement is one central construct in Bandura's social cognitive theory of moral thought and action (Bandura, 1991) and has been defined as a set of "psychosocial mechanisms that selectively inhibit moral standards from preventing reprehensible conduct by disengaging self-reproof when one engages in conduct that contravenes one's moral standards" (Boardley & Kavussanu, 2011, p. 93). In doping research, moral disengagement has emerged as an appealing determinant, since doping violates moral standards. In order to justify doping intentions and behaviour, moral disengagement cognitively restructures the negative consequences of doping. Moral disengagement thus appears to be a good candidate for empirically exemplifying how higher-order cognitive operations mediate the effect of inconsistencies between implicit and explicit evaluations on doping behaviour.

Framing moral disengagement in line with the example in Section 1.1, consider for instance an athlete for whom doping has positive mental associations (e.g. doping enhances