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Contemporary morality: Moral judgments in digital contexts

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ABSTRACT

Nowadays, several of the situations in which we have to make decisions are in digital form. In a first experiment (N = 1010) we showed that people's moral judgments depend on the Digital Context (Smartphone vs. PC) in which a dilemma is presented, becoming more utilitarian (vs. deontological) when using Smartphones in high conflict moral dilemmas. To provide additional evidence, we ran a second (N = 250) and a third experiment (N = 300), where we introduced time constraints and we manipulated time instructions. Our results provide an extended perspective on Dual-Process Models of Moral Judgment, as we showed that the use of smartphones, often assumed to be hurried which would be consistent with gut-feeling decision-making, increased the likelihood of utilitarian responses and decreased deontological ones. We suggest that the increase in utilitarian judgments is a result of inducing high construal, increasing psychological distance and giving rise to an abstract representation of actions. A fourth experiment (N = 1211), where we measured psychological distance, provided some first evidence for our hypotheses. This is one of the first studies to look at the impact of the digital age on moral judgments and the results presented have consequences for understanding moral choice in our increasingly virtualized world.

1. General introduction

1.1. Context-dependent Dual-Process Models in moral judgment

In this digital age, we spend a lot of time interacting with computer screens, smartphones and other digital gadgets. We buy online, work on the cloud, our social relationships are sometimes online-based, etc. Thus, the contexts where we typically face ethical decisions and are asked to engage in moral behaviour have changed. Nowadays, moral dilemmas are often presented digitally, that is, relevant information is presented through and decisions are made on a technological device.

A key distinction regarding moral judgments concerns deontological versus utilitarian decisions (Chaiken & Trope, 1999; Singer, 1991). Recent dual-process accounts of moral judgment contrast deontological judgments, which are generally driven by automatic/unreflective/intuitive responses, prompted by the emotional content of a given dilemma, with utilitarian responses, which are the result of unemotional/rational/controlled reflection, driven by conscious evaluation of the potential outcomes (Greene & Haidt, 2002; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001, Greene, Nystrom, Engell, Darley, & Cohen, 2004; Koenigs, Young, Adolphs, Tranel, & Cushman, 2007). In this account, an individual's ethical mind-set (rule-based vs. outcome-based, Barque-Duran, Pothos, 2015; Cornelissen, Bashshur, Rode, Le Menestrel, 2013) can play a central role. A deontological perspective evaluates an act based on its conformity to a moral norm (Kant, 1785/1959) or perhaps just a rule (such a law). By contrast a consequentialist/utilitarian perspective evaluates an act depending on its consequences (Mill, 1861/1998).

People often believe that judgments about “right” and “wrong” should be consistent and unaffected by irrelevant aspects of a moral dilemma or by its context. However, studies have shown, for example, that manipulations of the language (foreign vs. mother tongue) in which a moral scenario is presented can affect moral judgments through increasing psychological distance from the situation, and so inducing utilitarianism (Costa et al., 2014). The choice of deontological versus utilitarian judgments can vary depending on the emotional reactivity triggered by the dilemma (Valdesolo & DeSteno, 2006; Wheatley & Haidt, 2005). As such, establishing which conditions favor each of these two influences is fundamental to understanding the psychology of moral choice.

The present study explores whether a Digital Context (i.e. using a digital device such a Smartphone or a PC, as hundreds of millions

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of individuals do every day) can have a systematic impact on these processes.

1.2. Construal Level Theory, psychological distance and digital contexts

Instead of relying on affect-centered explanations, we propose that the relationship between deontology and consequentialism would benefit from analyses in terms of information processing. How is the information relevant to deontological considerations different from that relevant to consequentialist considerations? What causes people to adopt one or the other mode of decision-making?

Construal Level Theory (CLT) provides a framework of considerable potential relevance by linking mental representations to moral judgment. 'Individuals' judgments, decisions, and behaviours can differ as a function of construal levels. CLT proposes that the same event or object can be represented at multiple levels of abstraction (see Trope & Liberman, 2010; for a review). More weight is given to global, abstract features at high-level construal, whereas local, concrete features are more influential at low-level construal. According to CLT, psychological distance is a major determinant of what level of construal is activated. Distancing a target on any dimension of psychological distance (i.e., time, space, social, and hypotheticality) leads to greater activation of high-level construal (directing attention to end states) than low-level construal (Liberman, Sagristano, & Trope, 2002). Crucially, high-level construal is often assumed to align with more utilitarian decision-making (Trope & Liberman, 2010). Indeed, Gong, Iliev, and Sachdeva (2012) examined the idea of whether a person focuses on actions or outcomes while making moral choices depends on the psychological distance from the moral situation. They found that when the situation is perceived as far off, whether in time or space, consequentialist considerations loom larger; establishing that psychological distance from an event decreases deontological judgments and increases consequentialist choices. Furthermore, Aguilar, Brussino, and Fernandez-Dols (2013) examined whether psychological distance gives rise to an abstract representation of actions that make goals more prominent and can help us ignore their immediate effects. In three experiments they confirmed that psychological distance increase consequentialism. In other words, that different manipulations of psychological distance increased participants' consequentialist choices. In a nutshell, higher psychological distance gives rise to an abstract representation of actions that makes goals more prominent and can help us ignore the immediate affective impact of actions. And conversely, deontological judgments are more associated with psychological closeness due to the link between low-level construal and a focus on means.

The way some of the technological devices we use nowadays influence our decision-making capabilities and behaviours is unclear. Could Digital Contexts induce different construal levels (through psychological distance)? From a historical perspective, Kiesler, Siegel, and Mcguire (1984) and Walther (1996) were amongst the first to discuss how social psychological research might contribute to a deeper understanding of computer-mediated communication (CMC) specifically and of computers and technological change in society more generally. Although some of their studies indicated that CMC might be *impersonal*, a number of reports also showed a more *personal* CMC interaction, sometimes just as *personal* as face-to-face (FtF) interaction. They argued that perhaps the medium had no consistent effects but that different conditions surrounding CMC use lead to the contrasting results. More recently, Shaw, Ellis, Kendrick, Fenja, and Wiseman (2016) presented the first empirical study that explores some individual differences that exist between users of particular brands of smartphone devices. For example, in comparison to Android users, they found that iPhone owners are more likely to be female, younger, and increasingly concerned about their smartphone being viewed as a status object. Key differences in personality were also observed with iPhone users displaying lower levels of Honesty-Humility and higher levels of emotionality. In the present work, rather than focusing on specific smartphone brands, we take a step back and we focus on smartphones, as a general technological device, and we use PCs as a control group.

There has been a lot of literature focusing on time stress and judgements (Entin, Serfaty, & Alphatech Inc., 1990; Svenson, Edland, & Karlsson, 1985), but in specific, we are interested in the so called "narrowing effect", which means that individuals channel or tunnel their focus toward a main task and ignore or filter out certain cues. For example, Svenson et al. (1985) showed in a series of studies this effect when people were asked to choose apartments. Among all the different elements to consider about an apartment (such as size, quality, and distance from work), people who were put under time pressure focused primarily on the distance from work and underweighted all other criteria. More importantly, there is evidence that people experience the "narrowing effect" when using smartphones in decision-making (Ariely, 2016). A narrowing effect is consistent with the idea that devices such as smartphones would increase psychological distance giving rise to an abstract representation of actions. In other words, the narrowing effect would seem to be aligned with a more utilitarian/outcome-based mind-set, instead of a more emotional/deontological one.

For this reason we asked ourselves whether Digital Context, smartphone vs. PC, might influence the relation between different levels of construal (psychological distance), thus affecting the likelihood of utilitarian vs. deontological judgments. A complicating consideration concerns the impact of time in moral decision-making on smartphones vs. PCs. In general, more hurried or time-pressured responses are thought to be aligned with more emotional/gut feeling (i.e. deontological) decisions (i.e. Suter & Hertwig, 2011). Therefore, *if* smartphones are associated with more hurried or time-pressured responses (e.g., when serving as a default option for staying informed in a fast way, quickly checking email, getting from place to place, sharing moments in social media, sending brief messages, etc.), relative to PCs, then we would expect moral judgments on smartphones to likewise be biased towards deontological decisions. However, a contrasting perspective is our hypothesis that, even under conditions of time pressure, some digital contexts (i.e. Smartphones) could trigger utilitarian decision-making. We support this idea by the so called "narrowing effect" introduced above and by the recent results from Kusev, van Schaik, Alzahrani, Lonigro, and Purser (2016) that suggest that variation in accessibility of utilitarian information can produce variation in moral choices, with rational choices taking less time in certain conditions. This latter hypothesis gains credibility if we further consider that Smartphone use may not always be hurried or time-pressured (e.g., consider an individual in a train journey, using his/her smartphone to pass time).

To summarize, we hypothesize that Smartphones (vs. PCs) have the effect of channeling or tunneling the focus toward a main task at the expense of certain cues. This should induce high construal, increase psychological distance and give rise to an abstract representation of actions, thus biasing towards more utilitarian judgments. There is a potentially conflicting hypothesis, according to which, if Smartphone use is consistently hurried and time-pressured that would instead reveal a deontological bias. We first tested this prediction using three versions of the well-known Trolley Problem (Switch, Fat Man, Balanced; Thomson, 1985; see Methods sections). To provide additional support we also ran a