

Side-Effect Effect Take 2

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ABSTRACT. Person X chooses a particular course of action, which has an unintended—but, foreknown—chain reaction, resulting in either a positive or negative side effect. Is Person X deemed guilty or innocent of this side effect? Previous research has shown that adults, as well as children as young as 4 years old, tend to assign blame but downplay praise, according to the negativity or positivity (respectively) of the side effect of the intentional action (Leslie, Knobe, & Cohen, 2006). The present study sought to replicate these results, which have come to be known as the *Side-Effect Effect*, or the *Knobe Effect*. Via random assignment to either a harm condition or a help condition, participants read a vignette and then ranked the amount of blame or praise that the subject of the vignette deserved for the side effect of his action. Participants were then asked whether the subject purposely brought about the unintended side effect. Results indicated that individuals are more likely to attribute responsibility when an intentional action of an agent brings about a negative side effect, but that attribution of responsibility is more likely to be withheld from agents when an intentional action produces a positive side effect (56.90% vs. 30.10%), $\chi^2(1) = 12.00$, $p < .001$, $\phi = .27$. Similarly, the amount of blame attributed to the agent of the harm condition was consistently higher than the amount of praise attributed to the agent in the help condition ($M = 4.58$, $SD = 1.56$ vs. $M = 3.28$, $SD = 1.98$), $F(1, 159) = 20.52$, $p < .001$, $d = 0.73$.

Person X chooses a particular course of action, which has an unintended—but, foreknown—chain reaction, creating in its wake something akin to either a curse or a blessing. Is Person X guilty or innocent of this side effect? How do moral beings decide? A side effect is something that occurs as a by product of an action or decision. Knobe (2003) found that intuitions regarding whether a side effect was intentionally brought about can be shaped by a person's attitude toward the side effect in question. Beginning with the initial study, Knobe discovered that, when the intentional action of an agent produced a negative side effect, participants concluded that the agent deserved a lot of blame for the side effect. However, when the intentional action of an agent produced a positive side effect, participants concluded that

the agent did not deserve to be praised for the resulting side effect.

Knobe received some criticism from Adams and Steadman (2004) regarding whether individuals understood intentional action the same way, or whether this opened the door for some confusion about what was truly being measured. To address this, Knobe conducted a follow-up study to analyze whether the word *intentionally* was understood by participants to mean a reason for bringing about the side effect, rather than simply knowing what the side effect would be and proceeding with the intended action regardless of any side effect. Knobe (2004) replaced the word *intentionally* with *in order to* in the vignettes in his study and found the results to again be statistically significant,

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showing a propensity to attribute blame for a negative side effect and to withhold praise for a positive side effect. Preschoolers were likewise studied with vignettes geared to their age and understanding, and it was found that, beginning at age 4, children have the same intuition regarding judgment of praise and blame as do adults (Leslie, Knobe, & Cohen, 2006). That same year, Knobe and Burra (2006) translated the original vignettes into Hindi, expanding the study into another culture/language, and found once again an asymmetry between the attribution of blame over praise according to whether the unintended side effect was negative or positive. To further round out the analysis, Pettit and Knobe (2009) examined contributions made by others regarding the use of *intention* versus *intend* and *desire*, then added subsequent studies employing *decided*, *advocated*, and *in favor of*. The two concluded that the influence of moral judgment upon perceived intentional outcomes is persistent.

It was our aim with the present study to replicate Knobe's initial study, which has come to be known as the *Side-Effect Effect*, or the *Knobe Effect*, substituting only *purposefully* for *intentionally* in both the harm and help vignettes. I hypothesized that attribution of blame would be clearly manifested when an action that is purposefully done brings about a negative side effect, but that praise would be withheld from an agent when an action that is purposefully done brings about a positive side effect.

Method

Participants

A total of 169 men (48.8%) and women (49.4%) were recruited from a convenience sample of friends and work associates who responded to either an e-mail request or posting on Facebook®, and associates of personal contacts. Participants were ages 18 to 25 (15.5%), 26 to 35 (27.4%), 36 to 45 (33.9%), 46 to 55 (12.5%), and 56 and over (8.3%). They identified as religious (61.3%) and nonreligious (34.5%), and as African American/Black (3.0%), Asian (1.8%), Biracial/Multiracial (3.0%), European American/White (86.9%), Latino(a)/Hispanic (1.8%), Native American/Pacific Islander (.6%), West Asian/Middle Eastern (.6%), and other (1.2%). This study was approved by a Midwestern university's institutional review board, and all participants provided consent for their contribution.

Procedure

Participants accessed a Google® Drive survey via a link posted on Facebook or included in an e-mail whereby they read an informed consent document, agreed to participate, and completed an online two-item questionnaire. They were provided with a study description, randomly assigned to read one of two vignettes (harm condition or help condition), and then rated how much blame (for the harm condition) or how much praise (for the help condition) the subject deserved on a scale of 0 to 6 and stated whether Person X purposely caused the side effect in the scenario. Upon completion of the questionnaire, as well as in the informed consent, participants were notified of the purpose of the study and directed to locator.apa.org or to their local listings to find a counselor should they feel unsettled or otherwise upset by the presented material.

Measures

Participants were presented with one the following vignettes first used by Knobe (2003).

Harm condition.

A lieutenant was talking with a sergeant. The lieutenant gave the order, "Send your squad to the top of Thompson Hill."

The sergeant said, "But if I send my squad to the top of Thompson Hill, we'll be moving the men directly into the enemy's line of fire. Some of them will surely be killed!"

The lieutenant answered, "Look, I know that they'll be in the line of fire, and I know that some of them will be killed. But I don't care at all about what happens to our soldiers. All I care about is taking control of Thompson Hill."

The squad was sent to the top of Thompson Hill. As expected, the soldiers were moved into the enemy's line of fire, and some of them were killed (p. 192).

Help condition.

A lieutenant was talking with a sergeant. The lieutenant gave the order, "Send your squad to the top of Thompson Hill."

The sergeant said, "But if I send my squad to the top of Thompson Hill, we'll be taking the men out of the enemy's line of fire. They'll be rescued!"

The lieutenant answered, "Look, I

know we'll be taking them out of the line of fire, and I know that some of them would have been killed otherwise. But I don't care at all about what happens to our soldiers. All I care about is taking control of Thompson Hill."

The squad was sent to the top of Thompson Hill. As expected, the soldiers were taken out of the enemy's line of fire, and they thereby escaped getting killed (p. 192–193).

Participants who read the harm condition used a scale ranging from 0 (*not at all*) to 6 (*very much*) to describe how much blame the lieutenant deserved for what he did. Second, participants were asked (yes/no) whether the lieutenant purposely caused the deaths of the fallen soldiers. Participants who read the help condition used a scale ranging from 0 (*not at all*) to 6 (*very much*) to describe how much praise the lieutenant deserved for what he did. Second, participants were asked (yes/no) whether the lieutenant purposely saved the lives of the fallen soldiers. All participants' scores were averaged together, and all participants' yes/no answers were averaged together so that associations between praise/blame and responsibility could be measured.

Results

The data collected from each participant were responses to a harm or help condition vignette. Chi-squared tests were used to test the effect of the harm or help condition on whether participants believed that the lieutenant purposely killed or saved the soldiers. The results were significant. The percent of participants who believed that the lieutenant purposely killed the soldiers was greater in the harm condition (56.90%) than the percent who believed that the lieutenant purposely saved the lives of the soldiers in the help condition (30.10%), $\chi^2(1) = 12.00, p < .001, \phi = .27$.

Additionally, participants' attributions of responsibility for the lieutenant's actions were rated from 0 (*not at all*) to 6 (*very much*). An Analysis of Variance was used to test whether attribution ratings differed by condition. As predicted, participants in the harm condition assigned more responsibility on average than participants in the help condition ($M = 4.58, SD = 1.56$ vs. $M = 3.28, SD = 1.98$), $F(1, 159) = 20.52, p < .001, d = 0.73$.

Discussion

Consistent with past research, participants in the

present study were more likely to attribute blame when an intentional action of an agent brought about a negative side effect, and more likely to withhold praise from an agent when an intentional action produced a positive side effect. The amount of blame attributed to the agent of the harm condition was consistently higher than the amount of praise attributed to the agent in the help condition. The percentage of participants assigning blame to the lieutenant in the harm condition was significant, but less than anticipated. One possibility is that the scenario involved war. A couple of participants contacted us after the experiment had closed and willingly disclosed their thoughts that "all is fair in war." In their minds, it would not be fair to blame the lieutenant for doing what he felt was best. This seems irrelevant to whether the side effect was purposely done. Nevertheless, some participants might have been distracted by the particular scenario, rather than focusing on the question of intention. In the future, it would be interesting to give each participant two scenarios (either two of the help condition or two of the harm condition) to see whether responses would differ if one involved war and one involved something less prone to one making an exception for an outcome.

The current study was limited in that it was low in ethnic diversity. Knobe and Burra (2006) conducted a study with a set of harm and help vignettes translated into Hindi for Hindi-speaking participants in the United States. It may also be worthwhile to extend the study to include cultures which have not been westernized. Another facet that may be worth capturing is education level to see whether this has any impact on the judgment of the agent.

The present study substituted *purposefully* for the original *intentionally*, but revealed the same phenomenon. Consistent with previous similar studies, most participants' assessment of the positive or negative consequence of the agent's choice affected participants' belief regarding whether the consequences were caused on purpose. But why? Perhaps there are more questions to ask. An interesting avenue for future research could include testing how participants who identify as religious would rate a person in a harm/help condition versus how they would rate their concept of God in the same harm/help condition. One hypothesis could be that God would be viewed similarly to the way the lieutenant was in this study's harm condition, with more concessions made because it may be assumed

that God would have a good reason for permitting the harm since God is generally equated with goodness by those identifying as religious. However, in the help condition, a person may hypothesize that God would be given more praise than people are given for the positive side effect because participants may not feel comfortable withholding praise from God. Another avenue worth investigating may be to intensify the harm and help conditions, making them more graphic or more personal, to see if this affects the judgment of the intuited blame/praise and amount of responsibility assigned to the agent. As researchers continue to explore nuances of moral judgment (e.g., flash intuitive judgments, which seem to run afoul of deliberate reasoning), the picture of what it means to be a moral being will hopefully come into clearer view.

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