

RESEARCH PAPER

Goals for Good: Testing an Intervention to Reduce Materialism in Three European Countries

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Abstract

Background: Materialism is associated with a broad range of negative outcomes for individuals, societies, and the planet. We therefore experimentally tested whether a three-session intervention could cause sustained reductions in materialism.

Methods: Employed young adults (aged 18-30) in three European countries (UK, Italy, Hungary) were either encouraged to set intrinsic goals and reflect on self-transcendence values or were assigned to an active control group. We measured materialistic value and goal orientations, and we followed up two months after the completion of the intervention.

Results: Participants in the experimental group significantly decreased in their materialistic goal orientation by the end of the intervention and 2 months later, but showed no significant changes in their materialistic value orientation. Among the active control group, no changes in materialistic goal or value orientation were noted. Findings were independent of the cultures studied, of commitment to, self-concordance with, and progress made on chosen goals, and of engagement in the intervention.

Conclusion: This study demonstrated that encouraging and activating self-transcendence values and intrinsic goals is an effective strategy to reduce a materialistic goal orientation. This result was robust across a range of potential moderating factors, which suggests this intervention may be widely useful to reduce a materialistic goal orientation. We discuss why the intervention may have reduced materialistic goal orientations but not materialistic value orientations.

Keywords: Materialism, Values, Goals, Intervention, Extrinsic, Intrinsic

Abstrait

Contexte: Le matérialisme est associé à un large éventail de résultats négatifs pour les individus, les sociétés et la planète. Nous avons donc testé expérimentalement si une intervention en trois séances pouvait entraîner des réductions soutenues du matérialisme.

Méthodes: Les jeunes adultes employés (âgés de 18 à 30 ans) dans trois pays européens (Royaume-Uni, Italie, Hongrie) ont été soit encouragés à fixer des objectifs intrinsèques et à réfléchir sur les valeurs d'auto-transcendance, soit assignés à un groupe de contrôle actif. Nous avons mesuré la valeur matérialiste et les orientations des objectifs, et nous avons suivi deux mois après la fin de l'intervention.

Résultats: Les participants du groupe expérimental ont significativement diminué leur orientation matérialiste vers la fin de l'intervention et 2 mois plus tard, mais n'ont montré aucun changement significatif dans leur orientation matérialiste. Dans le groupe de contrôle actif, aucun changement dans l'objectif matérialiste ou l'orientation de la valeur n'a été noté. Les résultats étaient indépendants des cultures étudiées, de l'engagement envers, de l'auto-concordance avec, et des progrès réalisés sur les objectifs choisis, et de l'engagement dans l'intervention.

Conclusion: Cette étude a démontré que l'encouragement et l'activation des valeurs d'auto-transcendance et des objectifs intrinsèques est une stratégie efficace pour réduire une orientation objectif matérialiste. Ce résultat était robuste à travers une gamme de facteurs modérateurs potentiels, ce qui suggère que cette intervention peut être largement utile pour réduire une orientation objectif matérialiste. Nous discutons pourquoi l'intervention peut avoir réduit les orientations de but matérialistes mais pas les orientations de valeur matérialistes.

Mots-clés: matérialisme, valeurs, buts, intervention, extrinsèque, intrinsèque

INTRODUCTION

Young adults growing up in contemporary Western industrialised societies receive many daily messages advocating money and possessions as symbolic of a successful life and therefore a worthy aspiration. These messages promote materialism, defined as 'people's long term endorsement of values, goals, and associated beliefs that centre on the importance of acquiring money and possessions that convey status' (Dittmar, Bond, Hurst, & Kasser, 2014, pp. 880). Materialism is associated with a broad range of negative outcomes for the wellbeing of individuals, society, and the planet. For example, a recent meta-analysis (Dittmar et al., 2014) found a significant, consistently negative relationship between materialism (operationalised in multiple ways) and all categories of personal wellbeing examined, including life satisfaction, positive affect, and subjective wellbeing. Such results have been replicated across a wide range of demographics and cultures (Kasser et al., 2014; Unanue, Dittmar, Vignoles, & Vansteenkiste, 2014). Compared to those low in materialism, people with higher levels of materialism are also more likely to engage in anti-social behaviours (Kasser & Ryan, 1993), less likely to engage in pro-social behaviours such as volunteering and helping others (Briggs, Landry, & Wood, 2007), and more likely to act in ecologically destructive ways and have higher ecological footprints (Hurst, Dittmar, Bond, & Kasser, 2013).

Given the range of detrimental outcomes associated with materialism, two important questions for applied research are whether interventions can reduce it and whether any reductions can be maintained over time. The current study seeks to test a promising strategy to reduce materialism: the encouragement of intrinsic goals and self-transcendence values (Crompton & Kasser, 2010).

Theoretical Background

In empirical research materialism is commonly conceived of as both a value orientation and a goal orientation (Dittmar et al., 2014; Kasser, 2016). Values and goals are considered to be inter-related but distinct concepts. Values reflect what people view as important and desirable in their lives. They are beliefs and guiding principles that influence people's perceptions, choices, and behaviours (Schwartz, 2012). They exist across contexts and time, rendering them fairly stable personality characteristics (Bardi, Lee, Hofmann-Towfigh, & Soutar, 2009). A materialistic value orientation reflects the extent to which material possessions

are of central importance in people's lives, i.e., the extent to which they believe that material possessions are a good way to judge the self and others' success and that happiness can be increased through the acquisition of money and possessions (Richins & Dawson, 1992).

Goals are an individual's pro-active personal strivings to bring about a desired outcome; they involve intentional activity that focuses a person's energy and behaviour (Sheldon & Lyubomirsky, 2006). Hence, goals are more specific than values, and therefore may change more easily. Grounded in Self-Determination theory, Kasser and Ryan (1996) define a materialistic goal orientation as the relative priority placed on extrinsic goals for financial success, attractive appearance, and social recognition in comparison to intrinsic goals for community feeling, self-acceptance, and affiliation. Empirical support for the distinction between extrinsic and intrinsic goals has been demonstrated across 15 cultures (Grouzet et al., 2005).

Both values (as operationalised by Schwartz, 2012) and goals have been shown to exist in systems whereby some are compatible and some are in conflict. This contrast has been found empirically across populations worldwide (Grouzet et al., 2015; Schwartz, 2012). One of the most prominent contrasts apparent in the values model is that self-enhancement values, which reflect the motivation for self-centred interests such as wealth, conflict with self-transcendence values, which reflect interests in the wellbeing of others. Burroughs and Rindfleisch (2002) demonstrated empirically that a materialistic value orientation was closely associated to a self-enhancement value orientation and conflicted with a self-transcendence value orientation. Using circular stochastic modelling techniques, Grouzet et al. (2005) found that goals existed in similar systems, where extrinsic goals for financial success, image, and popularity (i.e., materialistic goals) clustered together and lay in direct conflict with intrinsic goals for community, affiliation, and self-acceptance. Thus, the literature suggests that values and goals are located within dynamic systems whereby increasing priority placed on a particular value/goal is accompanied by a decrease in opposing values/goals; this is sometimes referred to as a 'seesaw effect' (Kasser, 2016). Maio, Pakizeh, Cheung, and Rees (2009) and Bauer, Wilkie, Kim, and Bodenhausen (2012) provided empirical support for this idea by showing that the promotion and priming of particular values and goals were consistently accompanied by decreases in an orientation towards opposing values and goals; similar effects were also found in multiple longitudinal studies (Bardi et al., 2009).

Encouraging intrinsic goals and activating self-transcendence values has therefore been suggested as a promising strategy to reduce materialism (Crompton & Kasser, 2010; Kasser, 2016). Three studies have found that a materialistic goal orientation can be reduced through activities that encourage intrinsic goals and self-transcendence values. Weinstein, Przybylski, and Ryan (2009) found that university students who became deeply immersed in photographs of natural settings (i.e., had the self-transcendence value of appreciating nature activated) were less likely to have a materialistic goal orientation than were participants who had been exposed to human-made surroundings. Leks, Hope, Gouveia, Koestner, and Philippe (2012) found that university students who deeply reflected on intrinsic goals over 4 weeks reported an increased intrinsic goal orientation (i.e. a reduced materialistic goal orientation), in comparison to individuals who reflected on daily tasks. Finally, Kasser et al. (2014) demonstrated that adolescents who took part in an in-depth intervention involving reflection on intrinsic goals and considering self-transcendent uses of their money (e.g., sharing with others) reported decreases in their materialistic goal-orientation that remained evident 10 months after the intervention ended.

Although these studies provide promising evidence that a materialistic goal-orientation can be reduced through interventions that activate and encourage intrinsic goals and self-transcendence values, they have a number of limitations. First, only Kasser et al. (2014) tested how changes in materialistic goal orientation persisted after the intervention was over; however, experimental participants were compared to a non-active control group, leaving open the possibility that participants' materialistic goal orientation could have been reduced due to factors other than the activation of intrinsic goals (e.g., attention from the facilitator). Second, moderating factors were found to play a role in two of the studies, such that significant reductions in materialistic goal orientations were found only for those participants who were most engaged (Leks, et al., 2012) or immersed (Weinstein et al., 2009) in the interventions. Third, there is a lack of cultural, occupational, and age diversity, as all studies used university students in North America (i.e., US and Canada).

The Present Study

The current study experimentally tested whether a 3-session goal setting intervention encouraging intrinsic goals and self-transcendence values can reduce a materialistic value orientation and a materialistic goal orientation. We address the limitations

of past research in several ways. We used a sample of employed young adults from three European countries (Italy, the UK, and Hungary), each representative of a distinct culture in Europe (see Schwartz, 2014). We also included an active control group, and followed up two months after the completion of the intervention. Individuals were randomly assigned to take part in a three-session goal setting intervention that either taught them goal-attainment strategies and activated intrinsic goals and self-transcendence values (the experimental intervention) or that focussed on goal attainment strategies but did not attempt to reduce their materialism (the active control intervention). Based on previous research into the 'seesaw effect' and the success of previous interventions that encouraged intrinsic goals and self-transcendence values in reducing a materialistic goal orientation, we expected that materialistic value and goal orientations would be reduced in experimental group participants after completing the intervention, and that these reductions would be maintained 8 weeks later. We were less confident that the intervention would reduce materialistic value orientations because values are relatively stable personality characteristics. We expected that the active control group would not experience any significant changes in materialistic value and goal orientations at any time point.

Potential Moderating Factors

We explored three sets of moderating factors that could influence the effectiveness of the experimental intervention in reducing materialistic value and goal orientations.

First, cultural differences in the three countries were explored, as the UK, Italy, and Hungary have distinct value profiles (Schwartz, 2014). Given that previous research in a wide range of cultures demonstrates that intrinsic vs. extrinsic goals consistently oppose each other (Grouzet et al., 2005), we did not expect that the cultures studied would moderate the effects of our intervention on changes in materialistic value and goal orientations. We also explored whether organisational culture had a moderating impact, as participants working in private sector organisations could be more likely to hold materialistic value and goal orientations than those who work in public or charitable service. We did not expect this to impact changes in materialistic value and goal orientations, however, because when they are primed with intrinsic values and goals, materialistically oriented individuals respond by becoming more intrinsically oriented (Chilton, Crompton, Kasser, Maio, & Nolan, 2012).

Second, we considered Lyubomirsky's (2013) positive activity model, which proposes that the impact an intervention has on intended outcomes depends on people's motivation and effort. We therefore hypothesised that the greatest reductions in materialistic value and goal orientations could be experienced by participants who were more committed to their goals and who set goals they felt self-concordant with (i.e., felt they had freely chosen their goals and that the goals aligned with their values; Sheldon & Elliot, 1999). Participants also reported on the progress they had made on their goals at the end of the intervention so we could check whether the impact of the experimental intervention depended on the perceived achievement of their goals.

Third, we tested the potential moderating impact of participants' engagement with the experimental intervention, given that engagement and immersion have moderated the effectiveness of other interventions designed to reduce materialistic goal orientations (Lekes et al., 2012; Weinstein et al., 2009).

METHOD

Participant Recruitment and Procedure

Thirty intervention courses were delivered (10 in each country), with half randomly assigned to be the 'experimental' version and half to be the 'active control' version. Courses were delivered at 9 workplaces, of which 6 were private corporations, 2 were charities, and 1 was a public sector organisation. Additional courses were delivered in city locations advertised through social media. All participants were sent a flyer inviting them to undertake a "goal-setting course" as part of a research project. The flyer detailed the course structure and the commitment required to take part. We measured participants' materialistic value and goal orientations at three time points (see Table 1 for procedure for all participants). All courses were led by experienced facilitators who had been trained by the first author to deliver the materials.¹ Both versions of the course were delivered over three two-hour modules and all participants experienced the same procedure.²

Table 1: Procedure for all participants

Week(s)	Participants Activity	Measures Taken
0	Sign up for course, sign consent form, complete first survey.	Materialistic Goal Orientation, Materialistic Value Orientation (Time 1)
<i>Courses allocated to be experimental or active-control version</i>		
1	Attend Module 1 (2 hours)	
2	Attend Module 2 (2 hours)	Goal self-concordance, Goal commitment.
3 - 5	Work on 2 goals	
6	Attend Module 3 (2 hours)	Goal Progress, Course Engagement, Materialistic Goal Orientation, Materialistic Value Orientation (Time 2)
7-13	No activity	
14	Complete final survey	Materialistic Goal Orientation, Materialistic Value Orientation (Time 3)

Note. Details of the content of each module are available in the supplementary materials

Initially, 175 participants started the experimental course, of whom 79 dropped out, leaving 96 who completed the experimental course and the T3 questionnaire (45% attrition rate). One hundred and fifty started the active control course, with 75 dropping out, leaving 75 who completed the course and the T3 questionnaire (50% attrition). The final sample consisted of 171 participants (117 women, 50 men, 4 preferred not to say); ages ranged from 20 to 33 ($M = 27.51$, $SD = 2.37$). Fifty seven were from the UK, 71 from Italy, and 43 from Hungary. One hundred and fifty four were White, 6 were Indian, 3 were mixed, 5 were 'other,' and 1 each were Bangladeshi, Black African, and Black Caribbean.

Intervention Content

The Experimental Intervention³

The objective of Module 1 was to promote intrinsic goals and activate self-transcendence values. Participants were taught the 'Five Ways to Wellbeing' framework (Thompson, Aked, Marks, & Cordon, 2008): 'connect', 'take notice', 'keep learning', 'be active', and 'give'. This framework provided a good fit with Self-Determination Theory's definition of intrinsic goals (Kasser & Ryan, 1996): 'Connect' encourages affiliation; 'keep learning' encourages personal growth and self-acceptance; 'give' encourages community feeling; 'be active' encourages physical health, which is sometimes included as an intrinsic goal (e.g. Grouzet, et al., 2005); and 'take notice' promotes mindful appreciation of the world around one, which Schwartz (2012) defines as a goal of the self-transcendence value of universalism. Participants then explored some social and environmental impacts of high consumption lifestyles (e.g., species loss from habitat destruction, the use of children working to produce cheap goods); this served to prime self-transcendence values by considering the impact of materialistic lifestyles on other people and nature (Schwartz, 2012). A second objective was to teach participants evidence-based strategies to help them achieve their goals. They were taught the WOOP goal strategy (Oettingen, 2014). WOOP stands for Wish (what is my wish / goal?), Outcome (what is the best possible outcome for me if I achieve this goal?), Obstacle (what are the internal obstacles that will get in the way of me achieving my goal?), and Plan (what is my 'when-then' plan?). The WOOP model has been found to be effective in promoting goal success (Saddawi-Konefka et al., 2017). Participants used the WOOP strategy to set 1 goal that they felt would positively impact their own wellbeing and also have a positive impact on other people or the planet, thus activating self-transcendence

values to consider the goal's impact beyond themselves. For example, one participant set a goal to volunteer with the elderly, enabling him to 'give' (one of the 5 ways to wellbeing) and to have a positive impact on others in his community.

The objective of Module 2 was to embed intrinsic goal-orientations and self-transcendence values in the participants' daily lives. They reflected on the successes and challenges in pursuing their goals and on the impact they had noticed on their own wellbeing, other people, and/or the planet. They then set 2 further goals using the WOOP model and considered the impact on other people and/or the planet. They worked on these over the following 30 days. The objective of Module 3 was to encourage long term consideration of intrinsic goals and self-transcendence values. Participants were asked to consider their personal vision of a successful life and how they could have a positive impact on other people and/or the planet, then set two long term goals. They set 2 short term goals using the WOOP model to help them attain their long term goals.

The Active Control Intervention

The key differences between the experimental and the active control interventions were that, in the latter, no strategies were taught that encouraged participants towards intrinsic goals (i.e., the Five Ways to Wellbeing), and no attempts were made to activate self-transcendence values. Instead, across their sessions, the active control participants watched a TED talk about "Grit: the power of passion and perseverance" (Duckworth, 2012) and explored how they could use grit to attain their goals.

Measures

Cronbach's alphas were calculated to assess reliability for each measure for each country at each time point (see Table 2). Reliability was acceptable for all measures, except for Goal Commitment, suggesting that participants were more committed to one of their goals than the other.

Materialism

Material Values Scale. We used the 9 item Material Values Scale (Richins, 2004) as our measure of Materialistic Value Orientation (MVO). Participants rated how strongly they agreed with 9 statements from 1 (strongly disagree) to 5 (strongly agree). Example items included 'I admire people who own expensive homes and clothes' and 'I'd be happier if I could buy more things'. An average score of all answers was calculated.

The Aspiration Index. The Aspiration Index (Kasser & Ryan, 1996) was used to measure Materialistic Goal Orientation (MGO) by assessing the relative priority placed on extrinsic goals in comparison to intrinsic goals. A 12 item version was used (based on Kasser & Ryan, 1996) which included 6 intrinsic goals (i.e., 2 goals each for self-acceptance (e.g., 'I will feel free'), community feeling (e.g., 'I will help the world become a better place'), and affiliation (e.g., 'People will show affection to me, and I to them') and 6 extrinsic goals (i.e., 2 goals each for financial success (e.g., 'I will have a job that pays well'), social recognition (e.g., 'I will be admired by many people'), and attractive appearance (e.g., 'People will often comment on how attractive I look'). Participants first rated the importance they placed on each goal from 1 (not at all) to 9 (extremely). Then they rated how much effort they had put into working on each goal in the last 4 weeks, from 1 (none) to 9 (a lot), (Sheldon & Krieger, 2014). Summary intrinsic and extrinsic scores were calculated by averaging the importance and effort scores for all items. Alphas for the intrinsic scores ranged from .66 to .88 and for the extrinsic scores ranged from .66 to .90. A relative extrinsic versus intrinsic goal orientation score was computed by subtracting the summary intrinsic scores from the summary extrinsic scores.

Moderator Variables

Goal self-concordance. Participants rated four statements about reasons they had chosen their two goals. Two of the statements reflected controlled reasons to pursue the goal (e.g., 'because someone else wants you to') and two reflected autonomous reasons (e.g., 'because you really believe it is an important goal to have') (Sheldon & Elliot, 1999); ratings were from 1 (not at all because of this reason) to 9 (completely because of this reason). A self-concordance score was calculated by subtracting the sum of the controlled scores from the sum of the autonomous scores; the scores for both goals were then averaged.

Goal commitment. Participants rated on a scale of 1 (not at all) to 9 (very much) how committed they were to achieving each goal (Sheldon & Elliot, 1999); the scores for the two goals were averaged.

Goal progress. Participants rated two statements about the progress they had made towards their goals ('I have made a lot of progress towards this goal' and 'I feel like I am on track with my goal plan') from 1 (strongly disagree) to 7 (strongly agree); these items were adapted from Koestner and Koestner (2007).

Course Engagement. Participants rated 4 statements about the extent to which they found the course to be useful, interesting,

thought-provoking, and worthwhile from 1 (strongly disagree) to 7 (strongly agree), as per Lekes et al. (2012). Scores were averaged.

RESULTS

Preliminary analyses

Attrition

One-way ANOVAs confirmed that there were no significant differences in age, gender, country of residence (culture), ethnicity (all p s > .05), or levels of MVO or MGO at T1 between those who stayed in the study up to T3 and those who dropped out at any point. A Chi Square test showed there were no significant differences in attrition between the active-control group and the experimental group (p > .05).

Randomisation

Randomisation was successful as there were no significant differences between the experimental and active control groups in age, ethnicity, gender, or on T1 scores for MVO or MGO (all p s > .05). See Table 2 for means and standard deviations for each measure at each relevant time point.

Primary analyses

First, we tested whether MVO decreased more in the experimental group than in the active control group; we conducted a 3 x 2 (Time x Group) mixed ANOVA. There was no significant effect of time (p = .12) or group (p = .39), and no significant interaction between time and group ($F_{(2,338)} = 2.35$, p = .10). As such, the experimental intervention did not significantly reduce MVO in comparison to the active control group.

Second, we tested whether MGO decreased more in the experimental group than in the active control group; we again conducted a 3 x 2 (Time x Group) mixed ANOVA. There was no significant effect of time (p = .06) or group (p = .10), but there was a significant interaction between time and group ($F_{(1.89, 318.51)} = 3.64$, p = .03). Simple main effects analysis showed that MGO scores in the experimental group were significantly lower at T2 than at T1 (p < .001) and remained significantly lower at T3 than at T1 (p = .02) (see Figure 1). No significant differences in MGO scores across time were observed within the active control group (all p s > .55). Simple main effects analysis demonstrated there were no significant differences in MGO between the experimental and the active control groups at T1 (p = .85), but the experimental group's MGO scores were significantly lower than were those of the

Table 2: Means and Standard Deviations split by Group and Cronbach's Alphas split by Country

	Experimental			Active Control			All	UK	Italy	Hungary
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
<i>Measures of Materialism</i>										
T1 MGO	96	-2.06	1.27	75	-2.03	1.18	n/a	n/a	n/a	n/a
T2 MGO	96	-2.44	1.14	75	-2.03	1.24	n/a	n/a	n/a	n/a
T3 MGO	96	-2.35	1.32	75	-1.95	1.36	n/a	n/a	n/a	n/a
T1 MVO	96	2.52	0.67	75	2.69	0.79	0.82	0.85	0.79	0.86
T2 MVO	96	2.55	0.64	75	2.63	0.75	0.85	0.87	0.85	0.83
T3 MVO	96	2.66	0.75	75	2.67	0.71	0.84	0.86	0.86	0.82
<i>Potential Moderators</i>										
Goal Commitment	87	7.28	1.49	72	7.41	0.99	0.50	0.55	0.63	-0.09
Goal Self Concordance	81	7.67	7.21	67	7.70	7.11	0.87	0.66	0.84	0.94
Goal Progress	94	4.48	1.30	74	4.60	1.22	0.68	0.72	0.64	0.69
Course Engagement	87	5.27	1.35	68	5.72	1.18	0.94	0.95	0.95	0.83

Note. T1 = Time 1, T2 = Time 2, T3 = Time 3, MGO = Materialistic Goal Orientation, MVO = Materialistic Value Orientation

active control group at both T2 ($p = .03$) and T3 ($p = .05$). These results demonstrate that the experimental intervention significantly reduced MGO and that this reduction was maintained 2 months later, whereas the active control intervention had no significant impact on MGO.

Potential Moderators

To test the potential moderating impact of the cultures studied we conducted two 3 x 2 x 3 (Time x Group x Country) mixed ANOVAs on MVO and MGO. The three-way interaction was not significant for either MVO ($F_{(4,330)} = .197, p = .94$) or MGO ($F_{(4,311)} = 1.73, p = .15$). Thus, as expected, the impact of the experimental intervention on materialism was unaffected by the cultures studied.

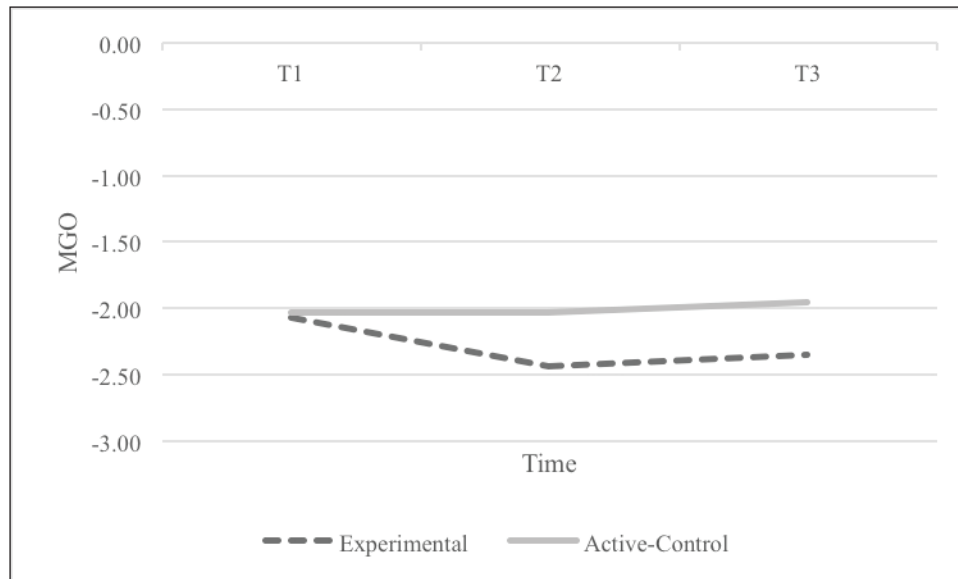
We then tested whether the other potential moderating factors (organisational culture, goal commitment, goal self-concordance, goal progress, and course engagement) had a moderating impact on changes in MVO or MGO. We used Hayes PROCESS method (model 1, 5000 bootstrap samples) to test the effect of the group

(X) on MVO and MGO scores at both T2 and T3 (Y), with each of the potential moderators separately included as the moderator variable (W) and T1 MVO and T1 MGO scores included as covariates (to code for change in materialism). Of these analyses, the only significant result was that the Group x Goal Commitment interaction predicted MVO at T3 ($B = .19, SE = .07, t = 2.75, p = .007$). Participants in the experimental group who scored lowest (i.e., -1 SD) on goal commitment were significantly higher on MVO at T3 than were similar participants in the active control group with low levels of Goal Commitment ($B = -.32, SE = .12, t = -2.71, p = .008$). There was no significant effect of Group x Goal Commitment in the prediction of MVO at T3 for those at the mean ($p = .29$) or for those who scored high (i.e., +1 SD) on goal commitment ($p = .18$).

To summarize, changes in MGO were not dependent on any of the moderating factors we tested. Changes in MVO scores did depend on goal commitment, with participants in the experimental group who had the lowest levels of commitment to their goals increasing in MVO at T3 relative to the active control group.

Figure 1

Simple Trajectories of Materialistic Goal Orientation (MGO) scores for Participants in the Experimental and Active Control Groups



Note. MGO = Materialistic Goal Orientation

DISCUSSION

This study demonstrated that people's materialistic goal orientation can be reduced as a result of a three-session intervention encouraging intrinsic goals and self-transcendence values. This reduction occurred regardless of the cultures studied (UK, Italy, or Hungary), and of the type of organisation participants worked for. It also occurred regardless of commitment to, self-concordance of, or progress made towards goals, and of engagement in the intervention. Such findings suggest that the intervention might be widely useful for reducing materialistic goal orientation. Notably, the reduction in materialistic goal orientation was still evident two months after the intervention ended, demonstrating the sustained effect of the intervention. These results are important given the extensive literature demonstrating the negative relationships between materialism and personal, societal, and ecological wellbeing (Dittmar et al., 2014; Hurst et al., 2013; Kasser, 2016). The current findings also address important methodological limitations of previous

intervention studies exploring this question (Kasser et al., 2014; Lekes et al., 2012; Weinstein et al., 2009).

It is important to note that while the intervention did reduce materialistic goal orientation it did not affect materialistic value orientation. We had anticipated that it might be more difficult to change materialistic value orientation than goal orientation, as values are considered stable personality traits that tend to remain constant across contexts and time (Bardi et al., 2009). Perhaps goal orientation might be more influenced through a brief intervention such as this one because goals involve intentional activity to direct one's time and energy (Sheldon & Lyubomirsky, 2006). In contrast, because values are more abstract than goals and tend to transcend specific actions and situations (Schwartz, 2012), changing materialistic value orientations may require longer, more in-depth interventions that help participants bring their values into consciousness and consider them across different contexts (see Bardi & Goodwin's, 2011).

It could also be that goal orientation change precedes value

orientation change. Bardi, Buchanan, Goodwin, Slabu, and Robinson (2014) found that individuals' value orientations changed in accordance with their new life situations. In other words, people's value orientations changed to fit their new circumstances after they had made practical changes in their lives. Indeed, behaviour change has been found to sometimes precede value change (Vecchione et al., 2016). In the current study, participants were encouraged to make conscious, practical changes to orient away from materialistic goals during the intervention. It could be that their value orientations would only later change to fit the practical changes they had made in their lives. Indeed, exploratory analysis revealed that materialistic value orientation was changing in the same direction as goal orientation, as changes in MGO and MVO between T1 and T2 were significantly positively correlated ($r = .16, p = .03$); similar results occurred for changes in MGO and MVO between T1 and T3 ($r = .27, p < .001$). Thus, while materialistic value orientation did not reduce significantly in the experimental group during the period of the study, it is possible that it could have reduced at a later date. It would be useful for future studies to track value orientation change over longer periods of time to test this possibility.

It is important to note the surprising result that, in comparison to participants in the active control group, participants in the experimental group who expressed the lowest commitment to the goals they set expressed stronger materialistic value orientations two months after the intervention. Perhaps this was due to psychological reactance (Miron & Brehm, 2006), which occurs if an individual feels that a free behaviour is threatened and then reacts to restore that behaviour. Because the intervention strongly critiqued materialistic values, some participants may have felt their values were being threatened and so clung to them even more strongly. Given this was the only significant moderator effect of the many tested, and the oddness of the result, this finding should be treated with caution.

We believe the current study has made three important additions to the existing experimental intervention research on encouraging intrinsic goals and activating self-transcendence values as a strategy to reduce materialistic goal orientations (Crompton & Kasser, 2010). First, we expanded the generalisability of this strategy by demonstrating its efficacy with employed young adults from three European countries with distinct cultures, thereby building on previous experimental studies that have used North American samples of students (Kasser et al., 2013; Lekes et al., 2012; Weinstein et al., 2009). Second, we demonstrated that a relatively

brief (6 hours) intervention involving intentional reflection on intrinsic goals and self-transcendence values led to a decrease in materialistic goal orientation that was maintained two months later. This builds on previous experimental studies demonstrating that materialism can be momentarily de-activated by priming intrinsic and self-transcendence values (Bauer et al., 2012; Maio et al., 2009) and on a 9-hour intervention where materialistic goal orientations were found to be reduced 10 months later (Kasser et al., 2014).

Our third significant contribution concerned testing the intervention against an active control group. The specific activities that were designed to reduce materialism were: a) exploration of the 'Five Ways to Wellbeing' as a means of encouraging intrinsically focussed goals; b) triggering participants' self-transcendence values through instruction about the environmental and social impacts of over-consumption; and c) encouraging participants' reflection on self-transcendence values by asking them to consider how their goals could positively impact other people and/or the planet. Given our use of an active control group, it seems likely that these specific activities were the ingredients that reduced materialistic goal orientation, rather than any other aspects of the intervention such as attention from experimenters or the act of setting and/or achieving goals. Such results provide further empirical support for Grouzet et al.'s (2005) circumplex model of personal goals, as well as for Crompton and Kasser's (2010) recommendation that activating self-transcendence values and intrinsic goals might be an effective strategy to reduce materialistic goal orientation.

Limitations

The present study had some limitations. For one, the findings regarding the success of the intervention may underestimate its true effect given that participants in the active control group were not explicitly instructed to avoid setting intrinsic goals. Indeed, our examination of the goals set by active control participants suggests that many did set intrinsic goals. Another limitation was that only self-report survey measures were used; future work could use other indices of materialistic value and goal orientations (see Kasser, 2016). A further limitation was that the experimental course was explicitly critical of materialistic values and goals, so demand characteristics and social desirability could have played a part in participants' answers. The fact that significant reductions were only found for one of two measures of materialism, however, makes this seem unlikely, as if participants changed their answers due to social desirability factors, this should have influenced both measures. Another limitation was that our sample was

predominantly White so, although we included participants from three distinct nations, the sample was not ethnically diverse; future studies on this topic should actively seek more ethnically diverse samples. Finally, the present study was limited in length. Although we measured materialistic value and goal orientations 2 months after the intervention, it would be useful to conduct assessments after a longer period has elapsed (e.g., a year or more). Doing so would allow us to test if changes in materialistic value orientation might have occurred after materialistic goal orientation change.

CONCLUSION

This study demonstrated that encouraging and activating self-transcendence values and intrinsic goals is an effective strategy to reduce a materialistic goal orientation. These changes were maintained for 2 months after the intervention ended. Further, this intervention was an effective strategy regardless of the cultures studied, of commitment to, self-concordance with, and progress made on chosen goals, and of engagement in the intervention. The robustness of the findings across potential moderators suggests that the approach might be widely useful for reducing materialistic goal orientations. Finally, the current study provides further empirical support for the circumplex model of goal systems and the 'seesaw' effect, whereby the activation of one aspect of people's goal systems can diminish opposing goals. ■

FOOTNOTES

1: "Because the courses were delivered by different facilitators and the extent to which a facilitator has an autonomy supportive style (i.e., nurturing the participant's inner motivation) has been found to influence learning outcomes (Ryan & Deci, 2000), we asked participants to rate the "autonomy supportive style" of their facilitators. We found no moderating impact of this variable on the effectiveness of the intervention in terms of materialistic value and goal orientation at T2 or T3".

2: "A non-active control group was also recruited who undertook no intervention and completed the Materialistic Values and Goals surveys on the same schedule as the other two groups. Participants in this group were excluded from the analysis because they had significantly higher scores on materialistic value and goal orientations at T1 than did the experimental and active control groups, making them an unsuitable comparison group."

3: A summary of the objectives and tasks set for each module of the experimental and active control versions of the intervention is included in the supplementary materials to this paper. Full course materials can be downloaded at: <https://www.globalactionplan.org.uk/wellbeing-consumerism/goals-for-good>

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References

- Bardi, A., Buchanan, K. E., Goodwin, R., Slabu, L., & Robinson, M.** (2014). Value stability and change during self-chosen life transitions: Self-selection versus socialization effects. *Journal of Personality and Social Psychology*, 106(1): 131-147.
- Bardi, A., Lee, J. A., Hofmann-Towfigh, N., & Soutar, G.** (2009). The structure of intraindividual value change. *Journal of Personality and Social Psychology*, 97(5): 913-929.
- Bauer, M. A., Wilkie, J. E. B., Kim, J. K., & Bodenhausen, G. V.** (2012). Cuing consumerism: Situational materialism undermines personal and social well-being. *Psychological Science*, 23(5): 517-523.
- Burroughs, J. E., & Rindfleisch, A.** (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29(3): 348-370.
- Briggs, E., Landry, T., & Wood, C.** (2007). Beyond just being there: An examination of the impact of attitudes, materialism, and self-esteem on the quality of helping behavior in youth volunteers. *Journal of Nonprofit & Public Sector Marketing*, 18(2): 27-45.
- Chilton, P., Crompton, T., Kasser, T., Maio, G., & Nolan, A.** (2012). *Communicating bigger-than-self problems to extrinsically-oriented audiences*. Common Cause Research, UK. https://valuesandframes.org/resources/CCF_report_extrinsically_oriented_audiences.pdf
- Crompton, T., & Kasser, T.** (2010). Human Identity: A missing link in environmental campaigning. *Environment: Science and Policy for Sustainable Development*, 52(4): 23-33.
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T.** (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107(5): 879-924.
- Duckworth, A.** (2012) *Grit: The power of passion and perseverance (TED Talk)*. Available: https://www.ted.com/talks/angela_lee_duckworth_grit_the_power_of_passion_and_perseverance?language=en
- Grouzet, F. M. E., Kasser, T., Ahuvia, A., Dols, J. M. F., Kim, Y., Lau, S., & Sheldon, K. M.** (2005). The structure of goal contents across 15 cultures. *Journal of Personality and Social Psychology*, 89(5): 800-816.
- Hurst, M., Dittmar, H., Bond, R., & Kasser, T.** (2013). The relationship between materialistic values and environmental attitudes and behaviors: A meta-analysis. *Journal of Environmental Psychology*, 36: 257-269. 3
- Kasser, T.** (2016). Materialistic values and goals. *Annual Review of Psychology*, 67(1): 489-514.
- Kasser, T., & Ryan, R. M.** (1993). A dark side of the American dream:

Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65(2): 410-422.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22: 280-287.

Kasser, T., Rosenblum, K. L., Sameroff, A. J., Deci, E. L., Niemiec, C. P., Ryan, R. M., Anadottir, O., Bond, R., Dittmar, H., Dungan, N., Hawks, S. (2014). Changes in materialism, changes in psychological well-being: Evidence from three longitudinal studies and an intervention experiment. *Motivation and Emotion*, 38(1): 1-22.

Koestner, K., & Koestner, R. (2007). Attaining personal goals: Self-concordance plus implementation intentions equals success. *Journal of Personality and Social Psychology*, 83(1): 231-244.

Lekes, N., Hope, N. H., Gouveia, L., Koestner, R., & Philippe, F. L. (2012). Influencing value priorities and increasing well-being: The effects of reflecting on intrinsic values. *The Journal of Positive Psychology*, 7(3): 249-261.

Lyubomirsky, S., & Layous, K. (2013). How do simple positive activities increase well-being? *Current Directions in Psychological Science*, 22(1): 57-62.

Maio, G. R., Pakizeh, A., Cheung, W.-Y., & Rees, K. J. (2009). Changing, priming, and acting on values: Effects via motivational relations in a circular model. *Journal of Personality and Social Psychology*, 97(4): 699-715.

Miron, A. M., & Brehm, J. W. (2006). Reactance theory—40 years later. *Zeitschrift Für Sozialpsychologie*, 37(1): 9-18.

Oettingen, G. (2014). *Rethinking positive thinking: inside the new science of motivation*. Current.

Richins, M. L. (2004). The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research*, 31(1): 209-219.

Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19(3): 303.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the

facilitation of intrinsic motivation, social development, and well-being. *The American Psychologist*, 55(1): 68-78.

Saddawi-Konefka, D., Baker, K., Guarino, A., Burns, S. M., Oettingen, G., Gollwitzer, P. M., & Charnin, J. E. (2017). Changing resident physician studying behaviors: a randomized, comparative effectiveness trial of goal setting versus use of WOOP. *Journal of Graduate Medical Education*, 9(4): 451-457.

Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, 2(1).

Schwartz, S. H. (2014) National culture as value orientations: Consequences of value differences and cultural distance. In Ginsburgh, V. and Throsby, D. (Eds.) (2014), *Handbook of the Economics of Art and Culture*, Vol.2. Elsevier.

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482.

Sheldon, K. M., & Krieger, L. S. (2014). Walking the talk: Value importance, value enactment, and well-being. *Motivation and Emotion*, 38(5): 609-619.

Sheldon, K. M., & Lyubomirsky, S. (2006). Achieving sustainable gains in happiness: change your actions, not your circumstances. *Journal of Happiness Studies*, 7(1): 55-86.

Thompson, S., Aked, J., Marks, N., & Cordon, C. (2008). *Five ways to wellbeing: The evidence*. New Economics Foundation, London.

Unanue, W., Dittmar, H., Vignoles, V. L., & Vansteenkiste, M. (2014). Materialism and well-being in the UK and Chile: Basic need satisfaction and basic need frustration as underlying psychological processes. *European Journal of Personality*, 28(6): 569-585.

Vecchione, M., Döring, A. K., Alessandri, G., Marsicano, G., & Bardi, A. (2016). Reciprocal relations across time between basic values and value-expressive behaviors: A longitudinal study among children: Reciprocal relations across time. *Social Development*, 25(3): 528-547.

Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2009). Can nature make us more caring? effects of immersion in nature on intrinsic aspirations and generosity. *Personality and Social Psychology Bulletin*, 35(10): 1315-1329.

SUPPLEMENTARY MATERIAL

Table 3: Objectives and Tasks set for each Module of the Experimental and Active Control versions of the Intervention

		Module 1	Module 2	Module 3
Experimental Group	Objective	Promote intrinsic goals and activate self-transcendence values. Teach evidenced based strategies to achieve goals (WOOP).	Embed intrinsic goal-orientations and self-transcendence values in participants' daily lives.	Encourage long term intrinsic goals and self-transcendence values.
	Task assigned	Learn about 5 ways to wellbeing & negative impacts of materialistic lifestyles on people and planet. Use the WOOP model to set 1 goal to work on over the next week that has a positive impact on personal wellbeing and a positive impact on the planet and/or other people.	Reflect on goal successes and challenges to goal progress & consider positive impacts on personal wellbeing, the planet, and/or other people. Use the WOOP model to set 2 goals to work on over the next 30 days that will have a positive impact on personal wellbeing, the planet, and/or other people.	Consider personal vision of a successful life & set 2 long term goals that will have a positive impact on personal wellbeing, the planet, and/or other people. Use the WOOP model to set 2 short-term goals that contribute to the long-term goals.
	Objective	Teach evidenced based strategies to achieve goals (WOOP + Grit).	Embed goal achievement strategies and importance of use of grit in participants' daily lives.	Encourage long term use of grit to achieve goals.
	Task assigned	Use the WOOP model to set 1 goal to work on over the next week, considering how to use grit to succeed.	Reflect on goal successes and challenges to goal progress and how grit was used to promote goal success. Use the WOOP model to set 2 goals to work on over the next 30 days and consider how grit could facilitate success.	Consider personal vision of a successful life & set 2 long term goals, considering how to use grit to succeed. Use the WOOP model to set 2 short-term goals that contribute to the long-term goals.
Active Control Group				