

Notes on the Gollwitzer and Milne articles

Implementation Intentions: Strong Effects of Simple Plans, by Peter M. Gollwitzer, Published in American Psychologist, 1999, Vol 54, No 7, 493-503

-strong intentions are more often realized than weak intentions

- but... correlations between intentions and behavior are moderate. Intentions account for only 20% to 30% of the variance in behavior (see reviews by Ajzen, 1991; Conner and Armitage, in press; Godin and Kok, 1996).

-people's past behavior is a better predictor than their intentions (even strong intentions)

-it seems unjustified to advise people who are motivated to do good to refrain from forming good intentions, but suggestion that good intentions are an effective self-regulatory tool is also unwarranted. What is needed is a theoretical and empirical analysis of how people's good intentions can be made more effective.

-the key is implementation: what can we do to help people actually implement the behaviors they intend to engage in?

-“Forming good intentions or setting goals is understood as committing oneself to reaching desired outcomes or to performing desired behaviors.” Some resist setting goals (for obvious reasons), but even for those who commit, “the distance between goal setting and goal attainment is often long (Gollwitzer, 1990). The key question is (my words) What are the problems we encounter on the path to implementing our goals?

-The author acknowledges that how we frame goals can improve outcomes (SMART) – goals specificity is helpful. Making them challenging. Making them about learning rather than performance (My goal is to learn how to play the piano” rather than “I’m going to perform Rhapsody in Blue perfectly).

-Goal intentions: “I intend to reach X”. By forming goal intentions, people translate their noncommittal desires into binding goals. ... this sense of commitment should obligate the individual to realize the goal (but in reality often does not). Goal intention doesn't guarantee goal completion

Implementation intentions are subordinate to goal intentions. “when situation x arises, I will perform response Y” and thus link anticipated opportunities with goal-directed responses. It's not a person's self that is linked to a desired state *as with goal intentions); rather the person commits himself or herself to respond to a certain situation in a specific manner. Implementation intentions serve the purpose of promoting the attainment of the goal specified in the goal intention.

-the idea is to automate the intended goal-directed behavior once the critical situation is encountered. Action initiation becomes swift, efficient and does not require conscious intent.

-Study: Before Xmas break students were given tasks such as writing a seminar paper, resolving a family conflict or engaging in sports activities. Researchers asked them at one point how many had formed intentions on when and where to get started, 2/3 said yes. Of this group, 2/3 actually carried out their plan. Of those who did not form implementation intentions, almost no one achieved the goal.

Conclusion: implementation intentions improve goal completion.

Another study; Students asked to write a paper on how they spent xmas eve. Submit within 48 hours after the event. Half were told to form implementation intentions by filling out a questionnaire that asked when and where they intended to write the report. ¾ of these students completed the exercise. Only 1/3 did in the other group that formed no implementation intentions. Conclusion implementation intentions improve goal attainment because they help people get started.

-Note: Implementation intentions didn't seem to matter much if the task was easy. Only when it's challenging

-How about unpleasant tasks? Health promotion and disease prevention are particularly difficult because the costs are short-term and the benefits long-term.

-Implementation intentions are hypothesized to trigger numerous psychological processes that facilitate action initiation. They are hypothesized to "cause the mental representation of the anticipated situation to become highly activated and thus easily accessible."

-“The goal-directed behavior specified in an implementation intention is triggered without conscious intent once the critical situational context is encountered.” 499

- In other words, if you write down when, where and how you're going to do something, when that time arrives, or the situation arises, you automatically do it. And it takes very little mental energy.

-“In the case of implementation intentions, automatic action initiation stems from one mental act of pairing a desired goal-directed behavior with a critical situation”

- Great language – you're basically mapping a desired action to a trigger event

-““The strategic act of will implied in forming implementation intentions, however, is as effective in automatizing action initiation as the repeated and consistent practice implied in habits. *Apparently, implementation intentions create instant habits, or at least mimic the automatic nature of habits*” 499

-the strength of commitment to implementation intentions matters. You'll get better compliance if you say, “I strongly intend to follow the specified plan” than if you say, “I will be flexible” 499

-this assumes that the commitment to the “goal intention” is strong (implementation intentions won't work if you're not committed to the goal in the first place.)

-“action initiation” is just one challenge. Sustaining the pursuit of a goal is also hard. Biggest obstacle: distractions. Gollwitzer says the research shows the best way to avoid distractions is to create

“distraction inhibiting implementation intentions” such as saying “Whenever the distraction arises, I will ignore it.”

500 “Goal pursuit is often thwarted simply because the critical stimulus is captured by a habitual response.” f/e we want to eat healthy food but get handed a dessert menu at a restaurant – our automatic response is to order the cheesecake.

-another example: imagine you’ve set a goal of not viewing old people in your stereotypical (negative) way. Create an implementation intention by saying, “Whenever I see an old person, I’ll tell myself ‘Don’t stereotype!’” “Several studies have shown that implementation intentions can reduce stereotyping related to gender and even homeless people. 500. The research calls implementation intentions a “self-regulating tool.”

Conclusion: “Implementation intentions link anticipated suitable opportunities to intended goal directed behaviors. ... such strategically obtained automaticity helps people to effectively meet their goals in the face of problems with initiating goal-directed actions, tempting distractions, bad habits and competing goals. ... given its easy application and its reliably strong effects on alleviating critical problems of goal pursuit, it seems justified to advise people to furnish their good resolutions with implementation intentions. Once people have formed implementation intentions, goal-directed behavior will be triggered automatically when the specified situation is encountered.”

[WHAT FOLLOWS IS A PASSAGE FROM THE MILNE STUDY]

[Combining motivational and volitional interventions to promote exercise participation: Protection motivation theory and implementation intentions](#) (you can click hyperlink to read study, or print out pdf)

Sarah Milne¹ *, Sheina Orbell² and Paschal Sheeran³ ¹ University of Bath, UK ² University of Essex, UK ³ University of Sheffield, UK

[extract] Effects of the volitional intervention on intention

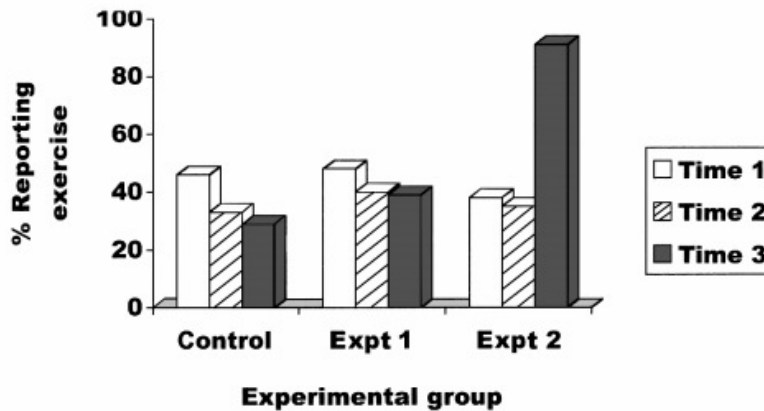
Did the volitional intervention change behavioural intentions?

There were no significant differences in intention following the volitional intervention (Time 3 measure of intention) between the participants who received only the motivational intervention (experimental group 1) and those who received both the **motivational** and **volitional** intervention (experimental group 2) (see Table 2). This suggests that motivational factors were not responsible for the effects of the implementation intention intervention. Rather, volitional factors must be responsible.

In order to test Hypothesis 5 (participants who form implementation intentions will engage in exercise on the day and at the time and place specified in their implementation intention) the days, times and places specified in participants’ implementation intentions were cross-tabulated against the days, times and places in which the exercise was enacted, as shown in Table 3 (cf. Orbell et al., 1997). All

participants in experimental group 2 exercised at the places specified in their implementation intention, whereas 97% exercised at the time specified, and 88% exercised on the day specified. Thus, Hypothesis 5 was supported. These findings support the view that implementation intentions allowed participants to delegate control of behaviour to the environmental cues specified in their implementation intentions and that encountering these cues led to automatic initiation of behaviour

176 Sarah Milne et al.



[THIS SHOWS THAT GROUP 1, WHICH READ ONLY THE HEALTH INFO, GOT 39% COMPLIANCE VS. 29% FOR THE CONTROL. GROUP 2, WHICH ALSO DID IMPLEMENTATION INTENTIONS, GOT 91% COMPLIANCE]

(Orbell et al., 1997; Sheeran & Orbell, 1999). We also analysed the reasons given for failing to exercise at Time 3 among participants who intended to do so in each of the three groups. Implementation intentions result in a strong and easily accessible memory trace of the context for initiating the behaviour (cf. Orbell et al., 1997). Thus, participants who formed implementation intentions should not report forgetting to exercise. Indeed, none of the participants in experimental group 2 did report forgetting to exercise, whereas 19% (N = 14) of participants in experimental group 1 and 14% (N = 6) of the control group said they forgot to exercise ($\chi^2(2) = 14.80, p < .001$). However, this was not the reason most often given for failure to exercise. Twenty-six per cent of participants in experimental group 1 (N = 19) and 45% (N = 19) of the control group said that they were too busy to participate in exercise at Time 3. Only one participant in the implementation intention group gave the same reason for not exercising ($\chi^2(2) = 14.26, p < .001$). 'I didn't get round to it' was another popular reason for failing to exercise among participants in experimental group 1 and the control group. Twenty-three per cent (N = 17) of intenders in the **motivation intervention** group [SHOULDN'T THIS BE GROUP 1?] and 23% (N = 10) in the control group said they did not get round to exercising. No-one in experimental group 1 [IS THIS A MISTAKE? IT'S REALLY CONFUSING. I THINK THEY MEANT GROUP 2] reported not getting round to exercise ($\chi^2(2) = 14.06, p < .001$). Thus, participants who formed implementation intentions were less likely to report: (i) forgetting to exercise, (ii) not having time to exercise, and (iii) not getting round to exercise. [THIS CONCLUSION DOESN'T FOLLOW IF THEY MEANT GROUP 1 ABOVE RATHER THAN GROUP

2. FOR OUR PURPOSES, LET'S ASSUME THEY MEANT GROUP 2. IT HAS TO BE A TYPO BECAUSE GROUP 1 IS 'MOVITATIONAL INTERVENTION' AND GROUP 2 IS 'VOLITIONAL INTERVENTION'

Here's what Group 2 was given

Implementation intentions

Following previous studies (Gollwitzer, 1993; Gollwitzer & Brandstatter, 1997; Orbell et al., 1997) participants in experimental group 2 were asked to form an implementation intention specifying where and when they would engage in exercise over the coming week. The following passage was presented after the measures of PMT variables, intention and behaviour at Time 2: Many people find that they intend to take at least one 20-minute session of vigorous exercise but then forget or 'never get around to it'. It has been found that if you form a definite plan of exactly when and where you will carry out an intended behaviour you are more likely to actually do so and less likely to forget or find you don't get round to doing it. It would be useful for you to plan when and where you will exercise in the next week.

They were then asked to complete the following statements: During next week I will partake in at least 20 minutes of vigorous exercise on (day or days)_____ at _____(time of day) at/or in (place)_____.

Here's what the implementation intentions plans looked

Table 3. Day, time and place specified for exercise behaviour in implementation intentions at Time 2 by time and place of exercise enactment reported at Time 3 (n = 73)

Day of enactment	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
<i>Day specified in implementation intention</i>										
Monday	8									
Tuesday		23	2	2						
Wednesday	1	2	25	3			1			
Thursday				13						
Friday			1	1	11	2				
Saturday						8				
Sunday							7			
Time specified in implementation intention			Morning	Lunch-time	Afternoon	Evening				
<i>Time of enactment</i>										
Morning			32							
Lunch-time			2	14						
Afternoon					21					
Evening							9			
Place of enactment	Goodwin sports centre	Goodwin swimming pool	Other swimming pool	Gym	Street	Park	Playing fields	Tennis courts	Team sports pitch	Home
<i>Place specified in implementation intention</i>										
Goodwin sports centre	27									
Goodwin swimming pool		48								
Other swimming pool			4							
Gym				15						
Street					1					
Park						2				
Playing fields							1			
Tennis court								6		
Team sports pitch									9	
Home										6

like: