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### Foregone and forethought

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# **APPENICES**

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## DUTCH SUMMARY

### **Theoretische achtergrond**

Wij leven in een ontzettend rijke tijd in de westerse maatschappij. Nog nooit in de geschiedenis hebben minder mensen hongergeleden dan nu. Maar in plaats van ondervoeding hebben we nu een probleem met overvoeding. Jaarlijks stijgt het percentage van mensen met overgewicht in westerse naties. Wij hebben ook nog nooit meer mogelijkheden gehad om te consumeren. Terwijl nog niet zo lang geleden de mogelijkheid om geld uit te geven beperkt werd door openingstijden, kunnen mensen nu 24/7 online aan hun consumptie-impulsen toegeven. Aan de ene kant hebben we zo veel meer vrijheid en keus, maar door een continue stroom aan consumptieverleidingen geven mensen meer geld uit en hebben meer persoonlijke schulden. Het lijkt erop dat veel mensen niet optimaal in staat zijn om zó met de vrijheden in onze maatschappij om te gaan dat ze een gezond, schuldenvrij en gelukkig leven kunnen leiden.

Een verklaring voor dit fenomeen komt uit de motivatiepsychologie. Mensen handelen vaak zonder oog te hebben voor de lange termijn. De bevrediging van impulsen op de korte termijn heeft vaak een sterkere invloed op het gedrag. Mensen zijn dus gewoon vaak niet in staat om hun impulsen door zelfcontrole te reguleren en zo lange-termijn doelen na te streven. Dit proefschrift onderzoekt de strategieën waarmee men een gebrek aan zelfcontrole kan voorkomen. Hierbij ligt de focus van het onderzoek op drie verschillende vragen: hoe reguleren mensen hun zelfcontrole (1) als ze eerder al succesvol een doel hebben nagestreefd, (2) als ze hebben gefaald, (3) en hoe bereiden mensen zich op toekomstige doelen voor.

### **Zelfcontrole in de context van succes**

Het maken van aannames en voorspellingen over toekomstige gebeurtenissen is essentieel voor zelfcontroleprocessen. Alleen als mensen de consequenties van bepaalde verleidingen voorzien zijn ze gemotiveerd om deze verleidingen te weerstaan.

Eerder onderzoek heeft twee verschillende zelfcontrole-mechanismen geïdentificeerd met tegengestelde effecten op doelmotivatie. *Highlighting* aan de ene kant suggereert dat mensen zich na een succesvol poging tot het behalen van een doel op hetzelfde doel concentreren en het verder nastreven. *Balancing* aan de andere kant betekent dat mensen verschillende doelen afwegen en zich dus na het behalen van een doel op een ander doel concentreren. Met

betrekking tot *highlighting* liet onderzoek zien dat mensen meer doelmotivatie hebben als ze hun eerdere succes interpreteren als bewijs voor hun toewijding aan het doel in kwestie. *Balancing* mechanismen treden vooral op als succes als het *behalen* van het doel wordt geïnterpreteerd. In het laatste geval krijgen mensen het gevoel dat ze meer hebben bereikt dan gepland en laten zich verleiden om andere motivaties te vervolgen. In dit proefschrift onderzoeken we of het herinneren van verleidingen in het verleden een highlighting dynamiek of een balancing dynamiek bevordert.

### **Zelfcontrole in de context van falen**

Wanneer het nastreven van een bepaald doel mislukt kunnen mensen het doel opnieuw oppakken en proberen het falen weer goed te maken, of ze geven voorlopig op en falen verder. Het laatstgenoemde werd door eerder onderzoek bijvoorbeeld in de context van eten en consumeren aangetoond. Als mensen hun dieet-doelen veronachtzamen en een pizza eten neigen ze ertoe om daarna ook nog een dessert te nemen. Maar er is ook onderzoek dat aantoon dat de ervaring van tekortschieten juist motiveert. Carver & Scheier (1991) hebben bijvoorbeeld gesuggereerd dat een discrepantie tussen de status quo en een doel stimuleert om meer doelgericht gedrag te vertonen. In dit proefschrift onderzoeken we wat er gebeurd als mensen het gevoel hebben dat falen niet bij hun past, dus als ze falen als een uitzondering begrijpen.

### **Zelfcontrole bij toekomstige pogingen tot doelgericht gedrag**

In dit proefschrift onderzoeken we of mensen strategisch toekomstige alternatieven bedenken die zelfcontrole activeren om zo gepland doelgericht gedrag te beschermen. Eerder onderzoek liet bijvoorbeeld zien dat mensen zelfcontrolemechanismen activeren als een verleiding het bereiken van een doel bedreigt. Dit proces staat bekend als *counteractive control* en stimuleert doelgericht gedrag omdat mensen zo in staat zijn om zich voor te bereiden op het weerstaan van verleidingen. In dit proefschrift onderzoeken we of mensen ook zelf verleidingen bedenken; met andere woorden: genereren mensen strategisch alternatieven die hun doel bedreigen om hun doel te beschermen?

### **Doelen van deze proefschrift**

De centrale onderzoeksvraag van dit proefschrift was hoe zelfcontrole mensen helpt hun doelen effectief na te streven. Zelfcontrole kan zowel na afloop als op

voorhand een rol spelen in het nastreven van doelen. Hiertoe zijn drie specifieke doelstellingen geformuleerd die in drie empirische hoofdstukken werden behandeld.

De eerste doelstelling van dit proefschrift was om te testen of mensen doelgericht gedrag laten zien als ze al in een vorige situatie succesvol hun impulsen hebben gecontroleerd. Deze onderzoeksraag is behandeld in Hoofdstuk 2. Zoals eerder al beschreven heeft onderzoek laten zien dat het een onderscheid maakt of mensen hun gedrag interpreteren als vooruitgang of als indicator van toewijding (e.g., Fishbach & Dhar, 2005). Ons werk levert een belangrijke bijdrage aan eerder onderzoek doordat we deze cognitieve zelfcontrole processen in de context van *counterfactual temptations* hebben onderzocht—verleidingen uit het verleden die we succesvol weerstaan hebben. De hypothese was dat mensen door *counterfactual temptation* een gevoel van grote zelfbeheersing krijgen en zo sterker gemotiveerd zijn om een langetermijn doel na te streven.

Ten tweede werden de zelfcontrole processen onderzocht als mensen eerder hebben gefaald in het streven naar een bepaald doel. Eerder onderzoek heeft laten zien dat falen vaak samenhangt met verder falen, maar ook motiverend kan zijn omdat mensen het gevoel dat ze meer zich meer moeten inspannen om hun doel te bereiken. In Hoofdstuk 3 behandelen we deze vraag en onderzoeken een fenomeen dat eerder nog niet werd beschreven in de psychologische literatuur: namelijk, wat gebeurt er als falen als een uitzondering wordt geïnterpreteerd? De hypothese was dat uitzonderingen een motiverend effect hebben, omdat mensen falen als atypisch interpreteren en het tekort willen goedmaken.

De derde doelstelling, tot slot, was om te onderzoeken hoe mensen omgaan met toekomstige pogingen om een doel te bereiken. Eerder onderzoek toonde aan dat zelfcontroleprocessen opgeroepen kunnen worden door toekomstige verleidingen omdat mensen gemotiveerd zijn om hun doelgerichte gedrag te beschermen. In Hoofdstuk 4 hebben we de invloed van *prefactual thinking*—het genereren van toekomstige alternatieven—op zelfcontrole onderzocht. De hypothese was dat mensen prefactuals strategisch gebruiken om zelfcontrole-conflicten in de toekomst te identificeren en zo hun doelgerichte gedrag te beschermen.

## Resultaten

De effecten van *counterfactual temptation* op doelgericht gedrag hebben we in Hoofdstuk 2 in drie studies onderzocht. Studie 2.1 liet zien proefpersonen die over een situatie in het verleden nadachten waar ze aan een verleiding

hadden kunnen toegeven (maar dat niet deden) een grotere mate van zelfcontrole ervoeren en vervolgens gemotiveerder waren om een belangrijk doel na te streven. Studie 2.2 repliceerde dit effect met een gedragsmaat van taakmotivatie. Studie 2.3 maakte een onderscheid tussen de interpretatie van counterfactual temptation als *progress* of als *commitment*. In overeenstemming met eerder onderzoek had counterfactual temptation alleen een positief effect op motivatie als mensen over hun doel-*commitment* nadachten.

De invloed van uitzonderingen op doelgericht gedrag hebben we in Hoofdstuk 3 in drie studies onderzocht. Studie 3.1 toonde aan dat mensen die falen als een geïsoleerd incident interpreteerden een sterker gevoel van uitzondering hadden. Dit leidde ertoe dat deze proefpersonen gemotiveerder waren om een belangrijk doel na te streven. In studie 3.2 werd aangetoond dat uitzondering niet alleen een mediërend maar ook een modererend effect heeft. Proefpersonen die falen als uitzondering interpreteerden hadden een sterker gevoel van zelfcontrole dan proefpersonen die falen als patroon interpreteerden en waren vervolgens gemotiveerder hun doel te bereiken. Studie 3.3 liet zien dat dit zelfcontrolemechanisme ook daadwerkelijk kan leiden tot doelgericht gedrag en niet alleen een effect heeft op intenties.

In Hoofdstuk 4 keken we naar de rol van *prefactual thinking* bij het activeren van zelfcontrole. In vijf studies vonden we ondersteuning voor de hypothese dat het genereren van alternatieven voor geplande pogingen tot het bereiken van een doel zelfcontrole activeert. In studie 4.1 werd aangetoond dat mensen die prefactuele alternatieven genereerden sterkere intenties voor doelgericht gedrag rapporteerden en een voorkeur hadden voor doelgerichte gedragsalternatieven. In studie 4.2 presteerden studenten die over alternatieven voor hun studieplannen nadachten beter op een cognitieve test dan studenten in een controle groep. In studies 4.3 en 4.4 vonden we ondersteuning voor onze hypothese dat het effect van prefactuele alternatieven op motivatie gemedieerd werd door doel *commitment*. Tot slot hebben we in studie 4.5 ook modererende rol van doel commitment onderzocht: de proefpersonen bleken alleen gemotiveerder om een doel te bereiken als ze een hoge commitment voelden, maar niet als het commitment laag was. Kortom, prefactueel denken kan helpen om motivatie voor een doelvervolging te vergroten, maar alleen als men tegelijk een hoge doel commitment ervaart.

## Conclusie

Op basis van de bevindingen van dit proefschrift hebben we drie strategieën geïdentificeerd die mensen kunnen gebruiken om zelfcontrole en doelmotivatie te vergroten. Ten eerste liet eerder onderzoek zien dat mensen als gevolg van succes het gevoel krijgen dat ze het zich kunnen veroorloven om aan verleidingen toe te geven. Aan de andere kant konden wij aantonen dat het oproepen van herinneringen aan counterfactuele verleidingen een gevoel van een hoge mate van zelfcontrole oproept en zo doelmotivatie ondersteunt. Ten tweede bleek uit eerder onderzoek dat falen bij een poging een doel te bereiken vaak gepaard gaat met verder falen. In dit proefschrift lieten we zien dat dit niet het geval is als mensen falen als uitzondering interpreteren. In dat geval wordt doelmotivatie juist sterker omdat mensen hun misstap willen goedmaken. Ten derde konden we eerder onderzoek naar *counteractive control* uitbreiden door te laten zien dat mensen strategisch alternatieven bedenken om toekomstig doelgericht gedrag te beschermen.

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## CURRICULUM VITAE

Johannes Seehusen was born on 31 October 1983 in Münster, Germany. He attended secondary education at the Freiherr-vom-Stein-Gymnasium, Münster, graduating in 2003. Afterwards, he spent one year as a civil servant in a hospital, before he (temporarily) decided to become a teacher and enrolled in Social Sciences and German Studies at the University of Münster. In 2006, he met the love of his life and together, they decided to change their paths and moved to Groningen, the Netherlands, in 2007. He obtained a Bachelor's degree (*cum laude*) in Psychology at the University of Groningen in 2010, and continued his studies with the Behavioural Science Research Master programme, leading to a M.Sc. degree (*summa cum laude*). Inspired by the academic world and curious for more, he started to pursue his doctorate funded by the Ph.D. fund of the University of Groningen under supervision of Dr. Kai Epstude and Prof. Dr. Russell Spears. He conducted his research on cognitive processes underlying self-control mechanisms, a topic which he not only found fascinating, but which also affected many areas of his personal life. Since 2016, he and his wife Sophia are proud parents of their son Leo.

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