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Primed Goals and Primed Actions: A Commentary from an Action Theory Point of View

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The meta-analysis by Chen et al. (2020) opened up an area for new research—priming of goals works to enhance performance similar to goal setting theory. This commentary uses an action theory point of view to add some research questions to be answered in the future.

INTRODUCTION

I am delighted to comment on this path-breaking article (Chen, Latham, Piccolo, & Itzchakov, 2020)—I very much welcome this review and meta-analysis. It shows that priming works and that priming goals may be as effective as non-primed goals. Until about 10 years ago, I taught goal setting in agreement with classic texts on goals and goal striving (Locke, Shaw, Saari, & Latham, 1981) suggesting that goals need to be conscious to be effective. Teaching from an action theory point of view I used a matrix of goals, information search, plans, and feedback on the one side and a hierarchy of action regulation with non-conscious routines to conscious levels (Frese & Zapf, 1994).¹ Each time in my lectures, I emphasized that the goal concept was an exception as it did not fit the matrix because goals would not be unconscious.

After reading Bargh (Bargh & Barndollar, 1996) and Latham (Shantz & Latham, 2009) and hearing their talks, I changed my PowerPoint slides and included non-conscious goals—this was good for me as it made my matrix symmetric. I did not need goals to be exceptional any longer.

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¹ I have used this matrix (Frese & Zapf, 1994, Table 1, p. 285) to understand applied issues of goal directed behavior. It helped me to understand theoretically how cognitions are able to regulate actions in an organized way.

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I am embarrassed that our classic text on action theory also made the claim that only conscious goals are functional (Frese & Zapf, 1994). I am embarrassed because I should have known better. Taking a phenomenological view it is fairly obvious that humans are highly adaptive to subtle environmental cues—and that adaptations to the environment often happen on primed cues without conscious knowledge. A good example is the capture error described by Freud who showed that routines sometimes take over the action in spite of different goals² (a person went to his bedroom with the goal of getting dressed for the dinner party but ends up in bed undressed—Freud, 1901). Many biases in the area of problem solving and cognitive errors are examples of unconscious processes taking over goal directed behavior—people are not aware of the biases working and are surprised when they see outcomes not predicted (e.g., anchor or availability biases) (Kahneman, Slovic, & Tversky, 1982). In our daily goal pursuit at work we adjust to situations as well. Working in countries with different cultures often leads to the observation that one acts differently in different cultures without making a conscious choice—we might notice it after the fact but our actions were not consciously chosen. People also behave differently in a church from a football stadium, and so on. These different behaviors are not a result of conscious goals; thus, non-conscious goals are examples of socially situated cognitions (Smith & Semin, 2004). The following is a good summary of priming research including Chen et al. (2020): “Information in the environment makes related mental content accessible and that information can potentially be used to guide judgment and behavior” (Loersch & Payne, 2014, p. 146).

This meta-analysis opens up a new research area. The current meta-analysis (Chen et al., 2020) is supposed to instigate new research; thus, I also want to contribute some new research questions (of course, Chen et al. also provide a number of such research questions—mine are just meant to add to this list). This is not always so—sometimes a meta-analysis can have the effects to stop research because they are the endpoint of research in an area. Fortunately, this is not the case for Chen et al. So here are a few research questions from an action theory point of view that I thought of when reading the lead article by Chen et al.

So let’s start with the different functions of goals (Eberly, Liu, Mitchell, & Lee, 2013). First, an attention-related mechanism—goals direct attention to relevant actions and (away from non-relevant actions) (Brandstätter, 2011). Second, goals energize and “pull”—in short, they have a motivational function. Third, goals are set-points allowing comparison and interpretation of

² The interpretation and the term capture error is from Norman (1981)—the routine takes over the action in spite of a contradictory goal—but the example is from Freud.

feedback (am I on the way or going away from my goal?). Are all of these functions affected similarly by conscious and unconscious goals?

Somewhere and somehow goals need to be represented in the human (un-) consciousness. It can be represented as an image (the image may be: Just think “how good does it feel to have finished this article”), as a more generalized need or motive (need for achievement), as a guide post and standard (moral standard may be: “as a professor, I need to publish and to profess”), mental contrasting—a desired future state compared to present obstacles (Oettingen, Wittchen, & Gollwitzer, 2013), and the intention with its *fiat function* (fiat function implies: “I really need to start to work on this article today”), and so on. Likely unconscious goals function via the mediator “needs” rather than via mental contrasting (Oettingen et al., 2009); therefore, Chen et al. (2020) also used unconscious needs for achievement as a criterion in their meta-analysis. So the general question is, do the same goal representations function for conscious as well as unconscious goal regulation processes?

I always found it interesting that goals need to be interpreted even when they are set from the outside (Hacker, 1998; Staw & Boettger, 1990)—except in rare cases, where an outsider can completely prescribe the behaviors necessary to achieve the goals. Here it is useful to differentiate goals from tasks. Tasks are set from the outside—either by roles, by organizations, or by intrinsic affordances in the environment. Goals are representations inside the person that function to guide behavior. Therefore, tasks given to a person require to be interpreted to become a goal. The act of interpreting makes the task to become an *own* goal—once the interpretation is done, the goal feels to be one’s own—a sort of internationalization; this type of interpretation of tasks happen even in highly mechanistic organizations—we noticed in our interviews with assembly line workers, that they would often infuse the task as goals with meaning of producing something of high societal importance, for example, of making sure that the product will not be dangerous (e.g., when the steering wheel is mounted into a car). Likely this kind of interpretation can be routinized and once it is routinized it can be primed. This is not as far-fetched as it seems. People have a history with certain goals. And even implicit messages can be “interpreted” automatically on the basis of prior frequent interactions with such goals. Chen et al. at least assumed such processes. Otherwise the picture in the call-center studies showing a person running would have led to call center employees running; but that was not the case and it was assumed that the pictures would mean something more general—high achievements (Latham & Piccolo, 2012) (obviously, there were different effects on performance when the interpretation was less complex as in the example of the more specific picture of smiling call-center employees; in both cases, implicit achievement motives increased).

Given an automatic interpretation of primes, not every prime works as well as any other prime; therefore, it is not so surprising that priming to walk slowly “instigated” by scrambled sentences of “old” can be fickle and cannot always be replicated (Bargh, Chen, & Burrows, 1996; Doyen, Klein, Pichon, & Cleeremans, 2012)—after all, to convert a scrambled sentence into a goal of walking slowly would certainly include quite a few mediators. The question of mediation may become more important in future research.

In keeping with the idea of action theory that all aspects of an action—goal setting, information collection, planning, and feedback processing—can be conscious and non-conscious (Frese & Zapf, 1994), we would assume that familiarity with the task may be an important moderator: whenever a task is done anew, conscious attention is required—this is likely an area in which conscious goals are needed. Whenever a task has been done many times, it becomes routine. It follows that priming goals only work for behaviors that have been done frequently and that have become routine. Therefore, it makes sense to use priming in the field and to expect stronger and more reliable effects in work and organizational psychology than in social psychology. For example, walking slower when “old” is associated, needs a history of practice before it can be primed; thus, priming may only work for students who actually have developed routines of walking with elderly people—students without such repeated experiences would not have ready-made routines for “walk slowly with the elderly” (maybe a difference between Belgium and California - conflicting study results in these countries). Similarly, call-center employees with little work experience should not show any increase in number of calls. For priming experience should matter.

Moderators could be tested in the future; here are a few more potential moderators:

- Do priming effects depend on whether stimuli and goals are given subliminally or supraliminally? Apparently some social psychological experiments insist on subliminal stimuli (Pashler, Rohrer, & Harris, 2013) while work and organizational approaches tend to favor supraliminal stimuli (letters, pictures that are visible for a while, etc.). Supraliminal stimuli may have stronger and more reliable effects even though the relationship between such stimuli and performance is not consciously represented (Shantz & Latham, 2009).
- It is likely that goals that contradict one’s conscience cannot be triggered (the postulate that goals need to be routinized before they are triggered automatically is important here).

- How many of the situational parameters have to be aligned; would the “runner” picture prime achievement motives in an organization with a low culture on achievement? A goal validation account might be useful here (DeMarree et al., 2012).

CONCLUSION

One of the major advantages of goal setting theory is its empirical approach (Locke & Latham, 2019); most other theories would have had more difficulties making the change from a purely conscious theory to one that includes priming. Let's hope that other theories take an example from goal setting theory of continuing to learn from empirical work.

REFERENCES

- Bargh, J.A., & Barndollar, K. (1996). Automaticity in action: The unconscious as repository of chronic goals and motives. In P.M. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 457–481). New York: Guilford Press.
- Bargh, J.A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology*, 71(2), 230–244.
- Brandstätter, H. (2011). Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and Individual Differences*, 51, 222–230.
- Chen, X., Latham, G.P., Piccolo, R.F., & Itzchakov, G. (2020). An enervative review and a meta-analysis of primed goal effects on organizational behavior. *Applied Psychology: An International Review*.
- DeMarree, K.G., Loersch, C., Brinol, P., Petty, R.E., Payne, B.K., & Rucker, D.D. (2012). From primed construct to motivated behavior: Validation processes in goal pursuit. *Personality and Social Psychology Bulletin*, 38(12), 1659–1670.
- Doyen, S.P., Klein, O., Pichon, C.-L., & Cleeremans, A. (2012). Behavioral priming: It's all in the mind, but whose mind? *PloS One*, 7(1).
- Eberly, M.B., Liu, D., Mitchell, T.R., & Lee, T.W. (2013). Attributions and emotions as mediators and/or moderators in the goal-striving process. In E. Locke & G. Latham (Eds.), *New developments in goal setting and task performance* (pp. 35–50). New York, NY: Taylor & Francis Group.
- Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H.C. Triandis, M.D. Dunnette, & L. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 4, pp. 271–340). Palo Alto, CA: Consulting Psychologists Press.
- Freud, S. (1901). *Zur Psychopathologie des Alltagslebens: Ueber Versprechen, Vergessen, Vergreifen, Aberglaube und Irrtum [psychopathology of every day life- translation in 1914; London, UK: Fisher Unwin Lim]*. Frankfurt, Germany: Fischer.
- Hacker, W. (1998). *Allgemeine Arbeitspsychologie [General work psychology]*. Bern: Huber.

- Kahneman, D., Slovic, P., & Tversky, A. (Eds.). (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge, MA: Cambridge University Press.
- Latham, G.P., & Piccolo, R.F. (2012). The effect of context-specific versus nonspecific subconscious goals on employee performance. *Human Resource Management, 51*(4), 511–523.
- Locke, E.A., & Latham, G.P. (2019). The development of goal setting theory: A half century retrospective. *Motivation Science, 5*, 93–105.
- Locke, E.A., Shaw, K.N., Saari, L.M., & Latham, G.P. (1981). Goal setting and task performance: 1969–1980. *Psychological Bulletin, 90*, 125–152.
- Loersch, C., & Payne, B.K. (2014). Situated inferences and the what, who, and where of priming. *Social Cognition, 32*(Supplement), 137–151.
- Norman, D.A. (1981). Categorization of action slips. *Psychological Review, 88*, 1–15.
- Oettingen, G., Mayer, D., Timur Sevincer, A., Stephens, E.J., Pak, H.-J., & Hagenah, M. (2009). Mental contrasting and goal commitment: The mediating role of energization. *Personality and Social Psychology Bulletin, 35*(5), 608–622.
- Oettingen, G., Wittchen, M., & Gollwitzer, P.M. (2013). Regulating goal pursuit through mental contrasting with implementation intention. In E.A. Locke & G.P. Latham (Eds.), *New developments in goal setting and task performance* (pp. 523–548). New York: Routledge.
- Pashler, H., Rohrer, D., & Harris, C.R. (2013). Can the goal of honesty be primed? *Journal of Experimental Social Psychology, 49*(6), 959–964.
- Shantz, A., & Latham, G.P. (2009). An exploratory field experiment of the effect of subconscious and conscious goals on employee performance. *Organizational Behavior and Human Decision Processes, 109*(1), 9–17.
- Smith, E.R., & Semin, G.R. (2004). Socially situated cognition: Cognition in its social context. *Advances in Experimental Social Psychology, 36*, 53–117.
- Staw, B.M., & Boettger, R.D. (1990). Task revision: A neglected form of work performance. *Academy of Management Journal, 33*, 534–559.