

Management in times of crisis: Can collective plans prepare teams to make and implement good decisions?

Collective
plans and
managing
crises

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Received 18 August 2020

Revised 3 October 2020

19 October 2020

Accepted 19 October 2020

Abstract

Purpose – Crises such as the Coronavirus pandemic pose extraordinary challenges to the decision making in management teams. Teams need to integrate available information quickly to make informed decisions on the spot and update their decisions as new information becomes available. Moreover, making good decisions is hard as it requires sacrifices for the common good, and finally, implementing the decisions made is not easy as it requires persistence in the face of strong counterproductive social pressures.

Design/methodology/approach – We provide a “psychology of action” perspective on making team-based management decisions in crisis by introducing collective implementation intentions (We-if-then plans) as a theory-based intervention tool to improve decision processes. We discuss our program of research on forming and acting on We-if-then plans in ad hoc teams facing challenging situations.

Findings – Teams with We-if-then plans consistently made more informed decisions when information was socially or temporally distributed, when decision makers had to make sacrifices for the common good, and when strong social pressures opposed acting on their decisions. Preliminary experimental evidence indicates that assigning simple We-if-then plans had similar positive effects as providing a leader to steer team processes.

Originality/value – Our analysis of self-regulated team decisions helps understand and improve how management teams can make and act on good decisions in crises such as the Coronavirus pandemic.

Keywords Collective implementation intentions, Team decisions, Causal processes, Laboratory experiments

Paper type General review

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The authors thank Anna Mayo, Johns Hopkins Carey Business School, for her helpful feedback on an earlier draft of this paper and gratefully acknowledge financial support by the German Research Foundation (DFG) through research units FOR 1882 “Psychoeconomics”; FOR 2374 “Riskdynamics” and through project 441551024 “Updating Risk”. This project has received funding from the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 703042.



Management Decision

Vol. 58 No. 10, 2020

pp. 2155-2176

Emerald Publishing Limited

0025-1747

DOI 10.1108/MD-08-2020-1088

Acute crises such as the Coronavirus pandemic disrupt the way we normally do things and fundamentally change the way we work (Rudolph *et al.*, 2020). Responses to crises may sometimes appear like a “*one-person show*”. For instance, Prime Minister Jacinda Ardern has rightfully become associated with New Zealand’s fierce and effective response to the pandemic. However, a careful analysis reveals that a key component of her leadership behavior is that she made important decisions in expert teams (Wilson, 2020). Although teams have a great potential to make good decisions, teams also exhibit decision biases (Sunstein and Hastie, 2015); especially under time pressure, when the common good requires accepting short-term individual losses, and when normative pressures arise. All these handicaps are present during crises, calling for a model of team decisions in crisis.

In developing our model, we follow recent recommendations to draw on behavioral science for crafting an effective pandemic response (Van Bavel *et al.*, 2020). We argue that crises disrupt how teams naturally perform tasks and magnify maladaptive team processes. Teams therefore need to plan the decision process prospectively, including when, where and how to act. Our approach to management teams making decisions is akin to the approach of medical teams performing a surgery. Medical teams usually do not cut a patient open and then start looking for the tools to perform the necessary procedure. Instead, medical teams prepare all necessary equipment beforehand, including equipment for emergency procedures. Such preparation allows to respond swiftly (i.e. high speed) but also grants sufficient flexibility (i.e. performing the right procedures for the situation at hand). We suggest that management teams may psychologically prepare the mental tools necessary to make and enact good decisions during crises by forming *We-if-then* plans.

We will proceed as follows: First, we develop a temporal model of team decisions, including the three stages of deliberation, decision and implementation. We then analyze how crises magnify existing and yield specific challenges for decision teams. Finally, we derive a theory-based intervention to help master these challenges: *We-if-then-planning* (*collective implementation intentions*, cIIs) and review our program of research on its effectiveness.

Team decisions: a “psychology of action” perspective

A fundamental assumption that many management scientists, practitioners and the general public share is that highly motivated teams (i.e. those strongly committed) will ultimately attain their goals. This is reflected in folk wisdom such as “if there is a will, there is a way” and also in management practices, such as providing financial incentives to increase the personal value of organizational goals (Tosi *et al.*, 2000). According to this perspective, challenges in times of crisis demand even greater commitment, akin to a hero walking through fire to accomplish the mission. There is some truth in this intuition, as those who lack commitment will hardly ever attain their goals (Sheeran, 2002), and this especially holds true when the going gets tough. However, a systematic analysis of the experimental evidence reveals that even highly committed individuals frequently fail to attain their goals (Sheeran and Webb, 2016), and this is also the case for teams (Wieber *et al.*, 2012). A high goal commitment is thus a necessary but no sufficient condition for team goal attainment.

Accordingly, the psychology of action (Gollwitzer and Bargh, 1996; Gollwitzer and Moskowitz, 1996) assumes that committing strongly to one’s goals (goal setting) is only the first step toward goal attainment. One also has to implement goal-directed actions—a process referred to as *goal striving* (Lewin *et al.*, 1944; Lewin, 1926; Heckhausen and Gollwitzer, 1987). During goal striving, several challenges may arise for the individual (see Gollwitzer and Sheeran, 2006, for a detailed analysis of these challenges). As management teams are composed of many individuals, these challenges may very well also affect conjoint goal attainment (Wieber *et al.*, 2012). Despite these parallels between individuals and teams, the specific challenges for decision teams during crises likely differ. Decision teams first deliberate the information at hand (*deliberate*), then decide on the basis of the available information (*decide*)

and finally persistent in implementing their decision (*persist*, Figure 1). We argue that crises elicit a host of extraordinary challenges that all are particularly detrimental to action control at the team level, hindering teams in making and implementing good decisions (Table 1).

Team decisions in times of crisis

Management teams have to make difficult decisions (Hambrick, 1987, 2015; Tindale and Jeremy, 2020), and team decisions are highly susceptible to the impact of crises. This is because crises render natural group functioning maladaptive and traditionally prescribed remedies ineffective. Teams need to communicate effectively and coordinate their actions (Marks *et al.*, 2001). During business-as-usual, teams are highly effective in performing these behaviors because established routines swiftly guide them (Pentland *et al.*, 2012). Crises disrupt these routines since they fundamentally change the ways in which we work together (Mayo, 2020), thereby posing new challenges. With regard to decision teams, three challenges stand out: deliberating efficiently, deciding for the common good and persisting to implement decisions.

Deliberating efficiently in times of crisis

Crises entail a host of emerging and rapidly changing information. A common approach in such situations is to wait until all pertinent information is available, deliberate thoroughly and then make a well-informed decision. Such an approach is not possible during crises where decisions need to be made urgently (Kerrisey and Edmondson, 2020). The Coronavirus pandemic, for instance, led to high fluctuations of the oil price, temporary factory closures and a wide application of home office. While such events show a certain coherence in hindsight, recognizing or even predicting them at the time they occur is difficult. This is because the vast body of pertinent information emerges from many different sources and over time as crises progress.

Making management decisions in teams in such critical times has the potential advantage that each team member can bring unique expertise to the table, such as economic, medical or epidemiological information. From an information processing point of view, such team decisions may yield a benefit over individual decisions as (1) members actually may learn from each other (i.e. contribute initially unshared information to the discussion) and (2) they may integrate all available information to reach a different (and better) decision than each individual alone (Schulz-Hardt and Mojzisch, 2012). Because individual members on their own lack the information to identify the optimal decision in these situations, such situations are commonly referred to as *hidden profiles* (Stasser *et al.*, 1989). Regrettably, teams routinely disregard unshared information—even if they jointly discuss it (Gigone and Hastie, 1993, 1997; Mojzisch *et al.*, 2010; Mojzisch and Schulz-Hardt, 2010)—and instead rely on what everybody already knows (i.e. shared information; Tindale and Kameda, 2000; Tindale and Sheffey, 2002). Teams thus make suboptimal decisions in hidden profile situations. These problems only intensify when teams face a wealth of information or have to decide under time

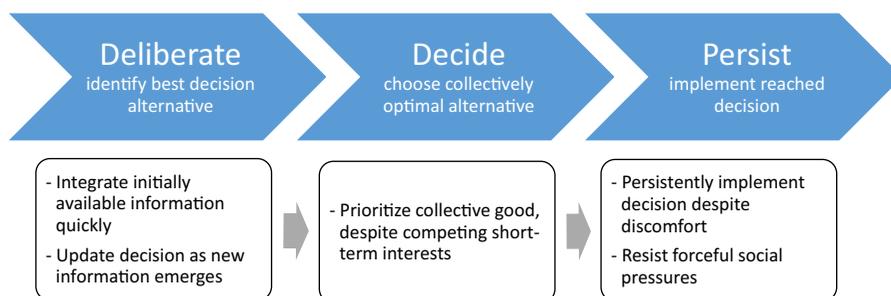


Figure 1. Conceptual model of team decisions with respective challenges during crises

Exp	Problem	Problem description	Planning solution	Empirical evidence	Application
<i>Deliberating: integrating socially and temporally distributed information</i>					
1a/b	Socially distributed information	Crises require bringing together experts with different backgrounds → Teams need to pool and integrate unique knowledge to make optimal decision	Plan to review conflicting information before making decision: Trigger team deliberation process to go over new information thoroughly	cII “And when we finally take the decision sheet to note our preferred alternative, then we will go over the advantages of the non-preferred alternatives again” improved information deliberation and hidden profile decisions under time pressure in interactive teams	Plan how to revise information before making final decision during crises
2a/b	Temporally distributed information	Crises develop rapidly and new information emerges over time → Teams need to integrate emerging knowledge to revise initial decisions	Plan to take onlooker’s perspective before making decision: Allow team to distance from & revise initial decision	cII “If we are about to make an investment decision, then we will judge the project as neutral observers who are not responsible for earlier decisions!” reduced escalation of commitment in interactive teams	Plan how to periodically objectively assess current situation during crises
<i>Deciding: prioritizing the common good</i>					
3	Foregoing immediate individual financial reward	Crises lead to resource scarcity, making it hard to decide for the common good → Teams need to prioritize collective over self-interest	Plan to focus on collective when making decision: Help prioritize collective outcome over individual immediate outcome	cII “When we are about to make our pricing decision, then we will consider the collective pay-off” increased cooperation in group prisoners’ dilemma game	Plan to focus on collective and long-term outcomes
<i>Persisting: tolerating discomfort and withstanding social pressures</i>					
4a/b	Implementing decision despite strong peer pressure	Crises violate basic needs, leading to increased social pressures → Teams need to implement their decisions despite undue social pressures	Plan to stick to necessities: Help implement necessary decision swiftly, outrunning automatic peer pressure	cII “And if we want to put something in our shopping basket, then we will only take what we really need!” reduced impulse buying under strong, automatic peer pressure	Plan to interrupt stakeholder who is about to pressure management

Table 1.
Overview of challenges for management teams during crises

(continued)

Exp	Problem	Problem description	Planning solution	Empirical evidence	Application
5a/b	Persistent effort despite discomfort	Crises can last for a long time, requiring persistent goal-striving → Teams need to stay on track despite discomfort	Plan to ignore discomfort and boost efficacy: Overcome premature signs of fatigue and prevent giving up early	cII “And if our muscles hurt, then we will ignore the pain and tell ourselves: We can do it!” improved persistence in physical task in interactive team. Increased group-focused verbal interaction qualified as a process variable	Plan to ignore uncomfortable experiences and actively use motivational self-speech

Note(s): cII: Collective Implementation Intention

Table 1.

pressure (Stasser and Titus, 1987; Bowman and Wittenbaum, 2012; Lu *et al.*, 2012; Mesmer-Magnus *et al.*, 2011). Both of these challenges are common during crises.

To improve decisions in hidden profile situations, teams usually need to take their time to bring up and integrate available information. For instance, arguing for different decision alternatives (*advocacy procedure*) improved team information processing, at least in terms of increasing discussion intensity (Greitemeyer *et al.*, 2006; Brian *et al.*, 2013). Similarly, actual dissent (which may be difficult to elicit in real teams) improved hidden profile decisions by increasing discussion intensity in terms of discussion time and information elaboration (Schulz-Hardt *et al.*, 2006). Teams during crises, however, do not have the time for such extended procedures, calling for a different approach.

Making urgent decisions in times of crisis moreover implies that the situation at hand is evolving. Management teams therefore need to systematically revise initial decisions as new information becomes available over time. For instance, during high replication rates of the Coronavirus, factory closures were crucial; as soon as the pandemic was at least somewhat under control, it became necessary to open up facilities. Even management teams that share and integrate all information at a given point in time may thus have to revise their decisions in the light of emerging information. Research indicates that teams commonly fail to heed emerging information and stick to their initial decision (i.e. escalate their commitment; Sleesman *et al.*, 2017). One may argue that such escalation would predominantly affect inconsequential decisions. However, even medical teams were found to stick to a patient's treatment that turned out to be ineffective (Turpin *et al.*, 2019).

One of the many processes leading to escalation of commitment (Sleesman *et al.*, 2017) is self-justification (Staw, 1981). Accordingly, escalation of commitment alleviates the dissonance associated with admitting that an initial decision was a mistake. In line with this perspective (1) being personally responsible for the initial decision, (2) having previously expended resources (i.e. sunk cost, time invested) and (3) feeling personally threatened by the negative feedback (i.e. ego threat) all increase the escalation of commitment. In teams, these processes are particularly pronounced when each group member takes responsibility for a joint decision, leading to greater escalation than in individuals (Sleesman *et al.*, 2017). Times of crisis pose all of these challenges, and therefore management teams in times of crisis should be particularly vulnerable to escalation of commitment.

To improve decisions in escalation of commitment situations, one may change the team leadership (Kalmanovich-Cohen *et al.*, 2018) or introduce dissent (Greitemeyer *et al.*, 2009).

However, introducing further volatility by changing staff is hardly advisable during crises. And, as noted above, teams may simply lack the time for extended debates with role-play (i.e. artificial dissent) during quickly evolving crises, calling for a different approach.

Deciding for the common good in times of crisis

Even when mastering the challenge of considering all pertinent information, good decisions during crises are often hard to make. This is because scarce resources and adaptation pressures preclude continuing with business-as-usual. Good decisions in times of crisis are thus often tough decisions to make since they require putting the common good over immediate self-interests (Kerr, 1983, 2013; Van Lange *et al.*, 2013; Bridoux and Stoelhorst, 2020). When decisions pose such an explicit conflict between collective and individual outcomes (Dawes, 1980; Messick and Brewer, 2005; Weber *et al.*, 2004), deciding in favor of one's group (i.e. cooperating) requires self-control (Sheldon and Fishbach, 2011; Martinsson *et al.*, 2012). Indeed, even those committed to the collective goal of securing common, long-term benefits often decide selfishly (Komorita and Parks, 1995) and shy away from uncomfortable or costly decisions, thus giving up on their own goals (Klinger, 1975). When making such decisions as a team, it becomes even harder to focus on the common good (Wildschut *et al.*, 2003). Apparently, being part of a team makes it easier to justify greedy decisions and instills a greater fear of being exploited (Wildschut and Insko, 2007).

Such short-sighted decision making against the common good was, for example, reflected in some universities' requirement for students to return to campus during the Coronavirus pandemic (Marris, 2020). In British universities, students in lock-down apparently were not allowed to leave their dormitories, were lacking basic services such as laundromats and even had to care for their infected class-mates (Mueller, 2020). This accelerated the spread of the disease. One reason for calling students back to campus was the revenue they bring in, which many universities depend on. As one student put it: "Students are money in the bank, and as long as we're on campus they'll worry about the consequences later. (. . .) The financial side has taken priority over student well-being and the greater good" (Mueller, 2020).

A few interventions have shown to help teams focus on the common good. For instance, introducing interdependencies across multiple decisions makes cooperation rewarding, thereby increasing team decisions for the common good (Kugler *et al.*, 2012). Moreover, when the situation affords the option to withdraw, groups frequently back out instead of deciding against the common good (Insko *et al.*, 2005). During crises, however, entire industries collapse and it therefore is uncertain whether repeated interactions will be possible at all. Moreover, management teams seldom have the option to simply back out during crises, calling for a different approach.

Persisting in times of crisis

As crises play out, the implementation of good decisions requires persistence despite discomfort and rising social pressures on decision makers. Teamwork commonly supports persistence but it is also susceptible to normative influences. It is therefore likely that teams give up on their decisions once social pressures arise.

Teams are known to be highly susceptible to normative pressures especially when these come from within. Given that crises demand tough decisions, it is likely that many members of one's organization will be affected. In such situations, peers may come to "call in favors" and demand that management teams change their decisions. In fact, teams may be particularly likely to justify unethical decisions such as breaking a signed agreement (Sarah *et al.*, 2009). For instance, a management team may be determined to restructure one's department but give up on it once observing other managers not following through.

To shield team members against strong social pressures, traditional approaches assume that teams need stronger goals to withstand them (Luo, 2005; Rook and Fisher, 1995).

However, setting goals was found to be ineffective in reducing compliance with inappropriate requests from people one had a strong connection to (Wieber *et al.*, 2014, Study 2; Gollwitzer *et al.*, 2011, Study 2). Merely setting strong goals is thus unlikely to successfully counteract the strong social pressures that arise during times of crisis, calling for a different approach.

Teamwork is highly motivating when each member's contributions are clearly visible and crucial for team success (Kerr and Hertel, 2011). Accordingly, interacting groups perform better than non-interacting individuals in physical persistence tasks where effort is clearly related to performance (Köhler, 1926; Witte, 1989; see Kerr and Hertel, 2011, for review); this effect holds true in real-world action teams (Hüffmeier *et al.*, 2017). Based on this research, one would expect that teams are well equipped to persistently endure the implementation of their decision, even during crises. However, our Psychology of Action perspective suggests that high motivation still leaves substantial team potential untapped, calling for alternative interventions.

Mastering times of crisis: We-if-then plans promote good decisions

Decision teams' natural behavior is maladaptive and traditional interventions are ineffective in times of crisis, calling for applicable alternative interventions. We argue that teams may resort to collective plans to better master the challenges of making and enacting good decisions in times of crisis. Groups seldom engage in spontaneous planning (Hackman *et al.*, 1976) and "the processes that underlie successful planning in teams are not well understood" (DeChurch and Haas, 2008). Pointing to the potential of planning, groups in one study only capitalized on member expertise when they had planned collaboratively (Woolley *et al.*, 2008). Our point of departure for analyzing the importance of planning in management teams during crises is a large body of individual-level research indicating that forming if-then plans or *implementation intentions* (IIs; Gollwitzer, 1993, 1999, 2018) helps committed individuals attain their goals (meta-analyses by Gollwitzer and Sheeran, 2006; Adriaanse *et al.*, 2011; Bélanger-Gravel *et al.*, 2013; Chen *et al.*, 2015; Toli *et al.*, 2016; Vilà *et al.*, 2017; Silva *et al.*, 2018; McWilliams *et al.*, 2019; and Webb *et al.*, 2012; meta-analysis of meta-analyses by Keller *et al.*, 2020).

Regarding management teams, the question arises how such social entities can plan ahead. One may simply prescribe individual plans to each team member to regulate their own behavior. However, as outlined above, management teams face specific challenges during crises, casting doubt on the potential success of such an approach. Assuming that most management decisions are made by teams (Hambrick, 1987) and that making a good decision may be represented as a collective goal (Wieber *et al.*, 2012), collective planning may be the best approach to improve respective team behaviors (Thürmer *et al.*, 2015a).

Group members can pursue collective goals (e.g. Weldon and Weingart, 1993; Kramer *et al.*, 2013), and, when it comes to setting goals, the simple distinction between We and I can make a big difference (Mitchell and Silver, 1990; Kleingeld *et al.*, 2011). While We-goals promote cooperative behaviors, I-goals promote the use of competitive strategies (van Mierlo and Kleingeld, 2010). We therefore argued that teams can form "We-plans" or *collective implementation intentions* (cIIs; e.g. "And if we encounter situation S, then we will show response R!"; Thürmer *et al.*, 2015a) to specify when, where and how the group wants to act toward a set goal. Referring to the group in a We-if-then plan should increase focus on the group and should thereby help teams and groups to strive for their goals more effectively by promoting the key group processes of collaboration and cooperation (cf. Mayo, 2020).

Tailoring if-then plans to teams should be highly promising during crises for at least three reasons. First, making if-then plans is easy and efficient (the interventions used in the studies reported below took about 5 min). Even when there is little time, teams in crisis situations can resort to if-then planning. Second, if-then planning leads to efficient action in the sense that it

helps detecting an anticipated critical situation swiftly, thereby ensuring that it is not overlooked (Parks-Stamm *et al.*, 2007). Such efficient action control should optimize decision processes under the time constraints of a crisis. Third, if-then planning may even lead to a more automated responding by creating a strong situation-response link (McCrea *et al.*, 2014). Such responses should help prioritize what really counts and withstand strong peer pressures, even when limited cognitive resources are available during crises.

In the following, we will report research testing the hypothesis that We-if-then planning (i.e. forming collective implementation intentions) helps teams make better decisions. As the effects of if-then plans are found to be strongest for difficult goals (Gollwitzer and Sheeran, 2006; Gollwitzer, 2014), we tested cIIs under tough conditions (e.g. time pressure, financial incentives or strong peer pressure) that are present during crises. We specifically highlight features of our studies that make them pertinent to conditions during the Coronavirus pandemic.

Planning to deliberate

We investigated whether if-then plans can help teams integrate a host of information that is socially distributed between members or temporally distributed as it only emerges over time. Regarding socially distributed information, we (Thürmer *et al.*, 2015b) reasoned that if-then planning may help teams integrate the available information at the right time, even when time pressure calls for making a decision quickly. If-then plans help individuals break routines (Aarts *et al.*, 1999) and deliberate about their decisions carefully (Henderson *et al.*, 2007; Doerflinger *et al.*, 2017). Since cIIs refer to the team, they should promote considering crucial new information (i.e. information initially uniquely held by one member) during discussions and improve decisions.

Teams of three students made four consecutive decisions in a laboratory setting (i.e. choosing an apartment, appointing a professor, selecting a shop location and hiring the best applicant for a company position). Akin to team decisions during crises, these group decisions had real-world consequences as students received a monetary bonus for each correct decision, each decision task contained a wealth of new information (45 information items), and teams had to decide under time pressure (6 min maximum). Before working on the decisions, teams took about 5 min to form a cII or a respective control plan. Teams randomly assigned to the cII condition specified a critical situation (coming to the point of making a decision) and a helpful strategy (reviewing all available information), and linked the two in an if-then format: “And when we finally take the decision sheet to note our preferred alternative, then we will go over the advantages of the non-preferred alternatives again.” Teams in the control condition specified the same strategy but without using an if-then link: “We will go over the advantages of the non-preferred alternatives again”.

Teams then worked on the first three decisions that represented so-called hidden profiles. Team members received individual information implying a suboptimal decision alternative, collectively discussed the decision and finally made a joint decision by marking their preferred option on a decision sheet. After completing the third hidden profile task, teams worked on a fourth decision task. Unbeknownst to them, unbiased information was available to each member from the onset. This way, we sought to test if our planning intervention would backfire (e.g. make teams change their optimal initial preference blindly). We recorded and coded the team discussions (Thürmer *et al.*, 2018).

In line with our assertion that integrating socially distributed information in hidden profiles poses substantial challenges, the majority of teams did not select the optimal alternative (only 6% correct decisions). However, while none of the teams in the control condition solved any of the hidden profile problems correctly (0% cases solved), teams in the cII condition solved 12%. Our analysis of the recorded discussions revealed that teams with

cIIs indeed recapitulated more crucial, previously unshared information. Importantly, all teams made very good decisions in the fourth case where key information was available from the onset (control condition: 93% correct; cII condition: 100% correct). This indicates that planning did not make teams change their preferences blindly but to thoroughly deliberate available information. Collective planning with cIIs thus lead to better team decisions under time pressure when a wealth of information was socially distributed between team members, indicating that We-if-then plans help make informed decisions on the spot. During crises, it may moreover be tempting to follow one's gut-instincts and change decisions blindly. Importantly, cIIs did not lead to such random variations but to well-justified decisions under time pressure, as indicated by high solution rates when team members' initial preference was correct (i.e. in Case 4).

Crises are evolving situations and a decision that was once prudent may later turn out to be suboptimal. Thus, even a team that shares and integrates all information at a given point in time may have to revise this decision as new information becomes available. As crises prohibit frequently changing the composition of decision teams, we tested whether collective if-then planning helps teams psychologically detach from their earlier investments and heed temporally distributed information. We reasoned that teams may find it difficult to deliberately distance themselves from their initial decision (i.e. by only forming respective goals). As if-then planning can be used to promote deep reasoning (Doerflinger *et al.*, 2017; Martiny-Huenger *et al.*, 2011), we argued that teams can resort to collective plans to facilitate taking an onlooker's perspective.

To test this assumption, we conducted two experimental studies with interactive teams of three students (Wieber *et al.*, 2015a). Teams assumed the role of a city council committee steering a social investment project of building a new kindergarten (Haslam *et al.*, 2006; see also Dietz-Uhler, 1996). Similar to crises, the project was described as urgent and unforeseen events elicited substantial threats (e.g. health hazards to children). For this task, all teams in Study 1 formed the goal "We want to make the optimal investment decision in each phase!" and, depending on random assignment, added the cII "If we are about to make an investment decision, then we will judge the project as neutral observers who are not responsible for earlier decisions!" or a self-distancing goal intention "We want to judge the project as neutral observers who are not responsible for earlier investment decisions!" (control condition). In three consecutive phases, teams then received information on the actual state of the project, discussed it and made a unanimous investment decision.

While initial information was entirely positive, later information was first mixed and then mostly negative, calling for reducing the investments over time. Team investment decisions served as the dependent measure. To disentangle the effects of goals and plans, teams in Study 2 were randomly assigned to form (1) no goal or plan, (2) only the goal intention to make optimal investment decisions or (3) this goal intention plus the cII to take an onlookers perspective (goal and cII were identical to those used in Study 1). Moreover, we made it clear that funds not invested in the current project would be available to other important projects, thus making it easier for teams to justify lower investments. Only teams that had added cIIs to their goal to make optimal investment decisions reduced their high levels of investment (Study 1) or maintained their moderate levels of investment (Study 2) in response to the emerging information. Those teams that had only formed goal intentions escalated even when they had added self-distancing goal intentions (Study 1), and they escalated as much as control teams without such a goal (Study 2).

In sum, our research findings indicate that We-if-then plans (cIIs) help both integrate socially distributed information when making initial decisions and consider conflicting temporally distributed information when revising past decisions (Wieber *et al.*, 2015a; Thürmer *et al.*, 2015b). For management during crises, the question arises how cIIs fare in comparison to established interventions, such as providing oversight by a leader. A recent

experiment (Görke *et al.*, 2020) provides preliminary evidence in this regard. Teams of four students worked on the decision tasks with socially distributed information used in our previous research, again forming either cIIs or mere goals. Moreover, one of the team members was actually a trained confederate who either served as a transactional leader (i.e. reminding team members of the task goals and the promised rewards) or merely as a note-taker. We again imposed a strict time limit and confronted teams with a wealth of information. Both cIIs and a leader improved the quality of team decisions, with no discernible difference between these interventions. Given that our cII intervention only took about 5 min and leaders commonly spend a substantial amount of time with their teams (and often receive a substantial salary), using cIIs to promote better decision making in teams seems to be the more time and cost-effective strategy.

Planning to decide

A second challenge for managing crises is that good decisions often entail personal sacrifice. This, for instance, is the case when wages and bonuses are cut or employees need to accept poor working conditions. Teams are particularly likely to abandon long-term collective goals and make selfish decisions, especially when resources become scarce and one-shot interactions prohibit continued cooperation. These conditions are present during crises, calling for interventions to help management teams focus on the common good. In individuals, if-then planning can help prioritize goals (Kirk *et al.*, 2011; Stroebe *et al.*, 2013) and promote actions at a personal cost (e.g. Hall *et al.*, 2012; Trötschel and Gollwitzer, 2007; Nickerson and Rogers, 2010). Accordingly, including the collective “we” in a plan should help focus teams on collective outcomes, facilitating tough decision making in the service of the common good.

To answer these questions, we (Thürmer *et al.*, 2020b) used a business scenario task. Similar to the conditions during crises, we introduced actual stakes (i.e. paid participants according to their decisions), substantial volatility (i.e. each decision was made with another opponent; *one-shot* decisions) and complete uncertainty (i.e. outcome feedback was provided after the experiment). The task posed a dilemma between a collectively profitable choice that was individually unprofitable (cooperation) and an individually profitable choice that was collectively unprofitable (defection). Importantly, participants’ own business belonged to an alliance group that could earn a collective pay-off that would be equally divided between the two players. In fact, these collective pay-off matrices were constructed so that the pay-offs were identical to the individual matrices. Before working on the task, participants received a “decision training” that either contained the cII “When we are about to make our pricing decision, then we will consider the collective pay-off,” the II “When I am about to make my pricing decision, then I will consider my own pay-off” or a neutral control plan, neither referring to the group nor the individual: “When the decision screen appears, then a decision has to be made.” Participants then played eight rounds of the business task with other alliance group members and eight rounds of the business scenario task against strangers.

In comparison to the II and control conditions, participants with the cII to consider the group pay-off indeed cooperated more with other alliance group members. This demonstrates that cIIs can promote tough decisions in the service of the group. Participants were paid according to their decisions, and cIIs thus helped participants forego some of their own payment to support the common good. Our results moreover indicate that this cooperation was strategic and only in the service of one’s own group. When playing against strangers and in a structurally similar investment game that they had not planned for, no difference between conditions emerged.

Our findings are informative for team decisions in times of crisis, when decision-makers have to make sacrifices to ensure the long-term common good. At the same time, making

sacrifices only promotes collective success if all decision-makers cooperate. It is therefore important to cooperate with one's group in the situation planned for to deter free-riders (Lewin, 1939/1997). Strategic planning with cIIs induced exactly this kind of context-specific cooperation in our experiment. On the other hand, one may argue that individual self-interest spurs collective success (Maciejovsky and Budescu, 2013; Liu *et al.*, 2019), indicating that it would be best to only apply individual plans. However, such market effects require strong reciprocity, which may be difficult to induce during crises. Collective planning thus seems well suited to promote team decisions for the common good.

Planning to persist

During times of crisis, good decisions are not the end goal but the start of a long implementation process. This is because crises such as the Coronavirus pandemic play out over time and therefore require persistence. During this process, it is likely that stakeholders start to question decisions that are uncomfortable for them, leading to rising social pressures on management teams to give up on their decisions.

It is very difficult for management teams to persist in the face of such imminent social pressures, and the mere conviction that tough decisions are necessary will thus not be sufficient to get these decisions implemented. Individuals who form if-then plans create strong situation-response links (Wieber and Sassenberg, 2006; Martiny-Huenger *et al.*, 2017) that trigger the specified goal-directed response (then-part) within milliseconds after encountering the critical situation specified in the if-part (Wieber *et al.*, 2015b). In a sense, if-then plans allow to strategically delegate action control to a situational cue (Gollwitzer, 2014). We consequently argue that forming collective if-then plans (cIIs) should help teams stick to the enactment of their decision, even when strong antagonistic social pressures arise.

We tested this prediction in the context of impulse buying decisions (Thürmer *et al.*, 2020a, Study 1). To elicit strong social influence, we primed a group membership that commonly pressures their members into impulse buying (*peer group*). As a control condition, we reminded participants of a group that does not create such pressures (*fellow student group*). Qualitative and quantitative pretesting within the target population of undergraduates showed that peers do indeed support impulse buying (see also Luo, 2005), whereas fellow students promote being frugal. In the second part of our experiment, participants first formed a cII constituting a useful strategy in an if-then plan ("And if we want to put something in our shopping basket, then we will only take what we really need!"). To determine whether the if-then format also contributes to cII effects, participants in two control conditions either learned the same strategy but not in an if-then format ("We will only take into our shopping basket what we really need!") or received if-then instructions containing all of the relevant words but without constituting a helpful strategy ("And if we want something that we really need, then we will put it in our basket!").

Participants then performed a hypothetical shopping task to prepare a certain dish for their respective group. Participants who had formed cIIs indeed made fewer impulse purchases (i.e. selected fewer items unrelated to the planned dish), with and without social pressure. Moreover, the if-then format further reduced impulse purchases, indicating that a strengthened associative if-then link qualifies as a psychological process underlying cII effects.

We used low-stakes decisions among highly capable undergraduates. It may therefore have been relatively easy to withstand social pressures. To rule out this alternative explanation, we conducted a large-scale correlational study with adolescents, who are especially susceptible to social pressures (Oettingen and Gollwitzer, 2015). Participants read an impulse buying scenario and indicated how they would behave as well as general

questions about themselves and impulse buying. Participants' reported automatic and deliberate peer pressure (i.e. automaticity of shopping with peers and peer norms) emerged as strong predictors of impulse buying decisions in the control condition. This relation was significantly weaker in the if-then planning condition (i.e. these predictors interacted with the planning condition). If-then planning thus helped decision-makers to withstand social pressures, even when being highly vulnerable. This indicates that cIIs may even be effective when social pressures are extremely strong, such as during crises.

With regard to management decisions in crisis, the apparent effectiveness of cIIs in combating automatic social pressures is important. Automatic social pressures often go unnoticed, especially when decisions are made urgently during crises, and therefore easily derail even well-intentioned decision-makers. It might therefore not be sufficient to merely convince management teams to stay on target (i.e. increase goal commitment); to stay on track, one should additionally encourage management teams to prospectively plan how to make and implement their decisions, ideally in an if-then format.

Even when keeping social pressures in check, persistently implementing decisions during crises is uncomfortable, for instance when facing the daily hassle of wearing a face-mask. Interdependent teams are well-equipped to inspire motivation to persist in the face of such discomfort. But our action perspective suggests that even highly motivated teams may not reach their full potential. We therefore tested whether cIIs would provide an added benefit and increase physical persistence in a well-established task (Thürmer *et al.*, 2017). Teams of three students jointly lifted a medicine ball (adapted from Bray, 2004). Team success thus depended on all members, posing a collective incentive (indispensability), and individual performance was visible, posing an individual incentive (identifiability; Kerr and Hertel, 2011). Much like common recommendations during crises (e.g. wearing face masks), holding a weight is not dangerous but it is uncomfortable (e.g. induces muscle pain) and leads to self-doubts (e.g. exaggerated feelings of exhaustion), thereby tempting performers to give up prematurely. If-then planning can help ignore such detrimental states (Schweiger Gallo *et al.*, 2009) and promote encouraging inner speech (Thürmer *et al.*, 2013). We consequently expected that the cII "And if our muscles hurt, then we will ignore the pain and tell ourselves: We can do it!" as well as the II "And if my muscles hurt, then I will ignore the pain and tell myself: I can do it!" should increase team persistence. However, assuming that cIIs lead to a team focus, we expected to see differences in how team members would interact. Teams in the control groups received the same strategies suggested in either an individual or a collective goal format (i.e. "We [I] will ignore our [my] muscle pain and tell ourselves [myself]: We [I] can do it!" [individual phrasing in brackets]).

In line with our hypotheses, teams with the II and the cII improved their performance in comparison to the respective control group (mere goal strategy). Importantly, cIIs intensified team-focused communication in comparison to IIs, as indicated by the number of words spoken and references made to the team during task performance. Teams with IIs referred more to themselves (first person singular pronouns used). Both IIs and cIIs can thus support persistence in the service of the team but while IIs support individual goal striving (e.g. little and self-centered social interaction), cIIs support collective goal striving (e.g. more and team-centered interaction). We confirmed the causal impact of these team processes in a subsequent interactive small-group experiment by manipulating communication. Teams with the cII indeed performed better when encouraged to communicate but teams with the II performed better when communication was prevented.

Key to team decisions during crises, teams with cIIs took the initiative to communicate about their team. Sticking to oneself may be an effective strategy during simple physical tasks but is certainly not effective for interactive intellectual tasks, such as making management decisions. In times of crisis, the usual communication channels are blocked (e.g. no in-person meetings during lock-down), and keeping communication channels open thus

requires the initiative of all team members (Mayo, 2020). Our research suggests that cIIs can help team members take this initiative.

General discussion

Times of crisis demand informed management decisions focused on the common good and untainted by undue social pressures. Our analysis indicates that even highly committed teams will often fail at making such good decisions in times of crisis. Fortunately, our analysis also indicates that simple We-if-then plans can contribute much to mastering this challenge. Our empirical evidence shows that teams with cIIs are more likely to (1) fully deliberate on socially or temporally distributed information, (2) decide for the common good at a personal cost and (3) persist to implement their decisions in the face of undue social pressures and discomfort. These conclusions are based on experimental evidence, providing support for the causal impact of collective plans and a host of experiments with interactive teams, providing support for the applicability of We-if-then plans in management teams.

Translational impact and application

Three key empirical questions regarding cIIs in management teams in crisis remain open: (1) Will cIIs work in management settings? (2) Will the benefits of cIIs outweigh their costs and potential risks? (3) And how can management teams form cIIs that apply to their specific situation? We have not investigated any of these questions directly but will now attempt to provide answers based on related existing research.

Implementation intention effects have been observed in a broad range of applied settings, including health behavior (Adriaanse *et al.*, 2011; Bélanger-Gravel *et al.*, 2013; Vilà *et al.*, 2017) and entrepreneurial decisions (van Gelderen *et al.*, 2017; Adam and Fayolle, 2015). Moreover, in most of our studies, we observed actual behavior that had consequences to participants' everyday life. Observing actual behavior is key to ensure the generalization from the laboratory to the field (Baumeister *et al.*, 2010), and this is especially true for observing behavior in interacting groups (Moreland *et al.*, 2010). Our present lab results therefore have a good chance of ultimately showing a translational impact.

The second question concerns the benefits, costs and potential risks of forming cIIs. One may argue that the effects of behavioral interventions are “too small to worry about” in management settings. However, a recent meta-analysis of meta-analyses found that if-then planning had an average effect of $d = 0.54$ (Keller *et al.*, 2020). This medium effect is comparable to the relation between firm performance and CEO pay (Tosi *et al.*, 2000) and to assigning a leader (Görke *et al.*, 2020). Importantly, the up-front costs of forming cIIs are small. Participants in our laboratory studies took about five minutes on average to form the required goals and plans, using simple pencil and paper methodologies. Even when assuming that an intervention in a field setting may require more explanation upfront, only minimal time-investment is needed. Concerning the risks, one may fear that if-then planning leads to rigidly following a chosen course of action. This could prove detrimental in times of crisis when the situation at hand changes rapidly. Our research, however, indicates that teams with cIIs adjusted their behavior quite flexibly: Teams with cIIs strategically cooperated only with group members and in the situation planned for, and cIIs even helped revise decisions in the light of new information. This indicates that cIIs do not lead to rigidly following a set course of action.

Finally, the time needed for traditional management training formats may be lacking in times of crisis. But translating our basic research findings on if-then planning directly into large-scale interventions is no easy endeavor either (Cohen and Sherman, 2014), as one needs to make sure to reach and engage people with minimal effort. One way to achieve this would

be to administer planning in questionnaires at a large scale, much like we did in most of the studies discussed in the present paper. Taking a different approach, people could develop plans tailored to their current situations and goals. To achieve this, teams could engage in mental contrasting with implementation intentions (MCII; reviews by [Oettingen et al., 2013](#); [Oettingen, 2014](#)). Mentally contrasting a desired future with present obstacles helps identify critical situations and goal-directed behaviors ([Oettingen and Mayer, 2002](#)), which then can be linked using an if (critical situation) – then (goal-directed behavior) statement. Several intervention studies in field settings observed positive MCII effects on behavior change (e.g. [Valshtein et al., 2020](#); [Mutter et al., 2020](#); [Loy et al., 2016](#)). [Gagné \(2018\)](#) suggests that strategic planning in organizations should incorporate the principles of if-then planning by using cIIs. As the present research indicates, We-if-then planning can help teams deliberate, decide and persist to meet challenges during crises and such large-scale interventions are therefore likely to be highly successful.

Theoretical implications

On a theoretical level, our model advances the understanding of management teams during crises in at least three ways. First, our account shows how individual team members can employ their self-regulatory capabilities in the service of the team. One may argue that such effects can be explained parallel to the individual level (e.g. merely by taking into account team members' social identification). Our model goes beyond that and assumes that collective planning focuses team interactions on the team outcomes. In line with this assumption, cIIs elicited cooperation specific to one's team and team-focused interaction ([Thürmer et al., 2017](#); [Thürmer et al., 2020b](#)). In contrast, assigning individual plans to each member of a team did not elicit such collective behavior. Second, according to recent theorizing, there may be an optimal level of uncertainty for team functioning ([Griffin and Grote, 2020](#)). Planning may enable teams to shape their environment to attain such optimal levels of uncertainty. And finally, our account highlights how teams can adaptively regulate their behavior in the face of crises. Such behavior has much in common with a characteristic referred to as *resilience*. As [Stoverink et al. \(2018\)](#) note, “[r]esilient teams need resources to identify adverse events with speed and accuracy to keep small problems from becoming major obstacles.” Our theorizing would suggest that collective if-then plans are well-suited to serve this demand since they are not only effective but also efficient; they need few resource to detect critical situations and elicit the necessary responses quickly and reliably.

Future research

Our research highlights three important areas for future research. Most prominently, we have so far tested our model with interacting teams in laboratory experiments. This approach provides the gold-standard of causal evidence: Collective planning indeed improved performance! It is, however, mute to whether our model holds in field settings. Individual-level research on if-then planning in extreme situations ([van Gelderen et al., 2017](#)) and in organizational health interventions ([Lehmann et al., 2019](#)) suggests that this should be the case. Due to the different processes at play with collective planning, future research on this question is still needed however (e.g. [Lehmann et al., 2019](#)).

We moreover observed a discontinuity between collective and individual plans, such that only collective plans promoted coordinative and cooperative behaviors ([Thürmer et al., 2017](#)) that are key for teams managing crises ([Mayo, 2020](#)). Individual-level and team-level characteristics such as problem-solving orientation ([Kerrissey et al., 2020](#)) or expertise of the group members ([Mayo et al., 2019](#)) may help teams show these behaviors, even when they do not have if-then plans. Such constructs might thus be important moderators of cII effects.

Finally, our model so far is mute to the organizational level. In this regard, Gagné (2018) suggests that strategic planning should be carried out according to the principles of if-then planning and Grant Halvorson (2014) argues that leaders may use implementation intentions to guide their teams. An exciting program of research on so-called *collaborative implementation intentions* observed that involving a partner in if-then planning can promote goal attainment in the health domain (e.g. exercise; Prestwich *et al.*, 2012; or breast self-examination; Prestwich *et al.*, 2005). Our model suggests that such approaches could effectively prepare organizations and their teams for emerging crises, much like medical teams at the operating table.

Conclusion and outlook

In the current paper, we made the attempt to integrate two of the major areas of research fathered by Kurt Lewin, group dynamics and motivation science, with management science. This integration allowed us to identify challenges that decision teams face in times of crisis and to derive a theory-based intervention: Collective implementation intentions or, simply put, We-if-then planning. Our experimental evidence indicates that such plans causally improve team decisions. In the tradition of action research, we hope to contribute to turning scientific theory into practical wisdom. If we achieve this, responses in times of crisis will go beyond “Oh My!” and make a positive difference in the real world.

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