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# The impact of change consultants' dialogic mindset: towards a game-theoretic explanation

Makoto Nagaishi<sup>1\*</sup>

## Abstract

This study aims to provide a theoretical argument and examples supporting the author's proposition that change consultants' mindsets significantly impact resulting performances. While some scholars assert diagnostic and dialogic change processes can co-exist as complementary modes of engagement, the other stream of research postulates that (1) the diagnostic and dialogic "mindsets" rely on different behavioral assumptions and (2) the distinction between "methodologies" and "mindsets" is critical in analyzing whether the practices are diagnostic or dialogic. In the author's preliminary game-theoretic settings, successful collective outcomes are highly probable with the dialogic mindset of change consultants, irrespective of the types of adopted methodologies. By contrast, dialogic methodologies in the later stage may not lead to successful collaboration if the change initiative started from the diagnostic interventions with a diagnostic mindset.

**Keywords** Dialogic mindset, Diagnostic mindset, Role of change consultants, Change outcome, Game-theoretic analysis

## Introduction

The impacts of change consultants' mindsets have been a critical issue in organization development (OD). In the literature, some scholars assert diagnostic and dialogic approaches can co-exist as complementary forms of engagement [11, 12, 16]. In the other stream of research, Bush and Marshak [3, 8] postulate that diagnostic and dialogic mindsets rely on different cognitive and behavioral assumptions.

The purpose of this article is to examine the relationship between successful change outcomes and the mindsets of change consultants from a game-theoretic perspective. Since the game theory has not yet found its way into the OD literature, it may be helpful to introduce the game-theoretic logic of coordinating interests between change initiators and recipients. This will be

attempted in the third section. The logic is then developed in the author's particular game-theoretic setting in the fourth section, leading to the proposition that successful change outcomes are highly probable with the dialogic mindset of change consultants, irrespective of the types of adopted methodologies. By contrast, dialogic OD methodologies in the later stage may not lead to successful collaboration if the change consulting starts from the diagnostic interventions with a diagnostic mindset.

This article's inquiry is structured as follows. The next section provides a comprehensive literature review on the impacts of diagnostic and dialogic mindsets on change outcomes. The following two sections introduce the logic of the author's integrative game-theoretic model that suggests the existence of path-dependent multiple equilibria, and the examples that support the author's propositions are shown in the fifth section. The final section concludes and discusses some possible avenues for further research.

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**Methods: modelling the basic structures**

**The impacts of the mindsets of change consultants: an overview**

Researchers in psychology define a mindset as a system of thought that directs attention and reasoning [32]. Given this understanding, a diagnostic OD mindset can be defined as a traditional system of thought that leads to reasoning from a positivist and mechanical perspective [1, 2, 20]. The diagnostic mindset is based on the cognitive assumptions that (1) organizational reality is an objective fact, and (2) change is so episodic and linear that collecting and applying valid data for objective problem-solving change efforts. It generally recognizes that change consultants can plan and manage the processes with objective data analysis and problem-solving.

On the other hand, Bushe and Marshak [7, 8] proposed a dialogic OD mindset based on social constructionist assumptions. They defined a dialogic mindset as a system of thought based on the assumptions that (1) reality is socially constructed, sustained, and transformed by social interactions, (2) these social interactions initiate inquiry-based processes that rely on shared meaning-making and result in the transformational change of the client system; and (3) this type of change cannot be managed objectively due to its emergent nature of idiosyncratic and context-dependent change processes. As shown in Table 1, the dialogic mindset leads to a different set of assumptions from the traditional diagnostic one [6, 9, 29]. Bushe and Marshak comment that it is not easy “for a leader to get curious about what others think and be influenced by it while operating out of a mechanistic or organic orientation” [26], p. 2).

Nagaishi [31] attempted to extract a plausible explanation for the effective oscillation of diagnostic and dialogic approaches, more grounded on qualitative data analysis. The abductive study used a Japanese multinational corporation (MNC) as a case in point and found that change consultants’ critical role in building a collaboration capability by oscillating diagnostic and dialogic change processes. The article concluded that diagnostic and dialogic

approaches could be adequately blended in methods and at the mindset level. It explained that various types of practitioners engage in the same project, and their mindsets are mutually influenced for the change initiative’s success.

What is missing (or understudied) in the arguments of the literature? One of the interesting and hopeful focuses is analyzing the relationship between successful change outcomes and the mindsets of change consultants from a systematic and theoretical viewpoint. The present study may provide preliminary propositions using a game-theoretic structure in which the responsive patterns of members result in considerable variations in organizational performances.

**The logic of coordinating interests between change initiators and change recipients**

Any change effort leads to altering the system’s collective mechanisms of *sensemaking* [13–15, 22, 24]. Sensemaking is one of the core theoretical perspectives to understand social cognition from the interpretivist perspective [21, 34]. It offers a way of understanding how people make sense of their complex recurring cycle of communication and is also “understood as a process that is (a) grounded in identity construction, (b) retrospective, (c) enactive of sensible environments, (d) social, (e) ongoing, (f) focused on and by extracted cues, (g) driven by plausibility rather than accuracy” [36], p. 17).

As a new specialized form of sensemaking-related constructs, Whittle et al. [37] defined *sense-censoring* as the process through which actors consciously ‘censor’ and then edit (or silence) their sensemaking to avoid the anticipated reactions or counter-actions from others. They also stated that power processes (in other words, organizational politics) are one of the primary factors that make sense-censoring (saying nothing) happen and may end up in strategic *inaction* (doing nothing) in underperforming organizations in the long run. A critical reason for this *inaction* is change recipients’ past

**Table 1** Contrasting diagnostic and dialogic mindsets

Diagnostic mindset: key assumptions	Dialogic mindset: key assumptions
Reality as an objective fact	Reality as a socially constructed process
Organizations as open systems	Organizations as social networks of meaning making
Leaders can manage goal-oriented and planned change efforts because there is enough clarity about the problem-solving process	Leaders shape organizational curiosity about what others think and how meaning is made to learn from people’s experience
Change as an episodic and linear process	Change as a continuous and adaptive process
Collecting and applying valid data using objective problem-solving method leads to planned change	Change processes are inherently complex and adaptive, and no one knows the correct answer in advance. Thus, the answer is to use emergent and generative change processes

		The change initiator's image of the change recipient		
		Follower	Arm's Length	Partner
The change recipient's image of the change initiator	Commander	Command & Control		HQ's sensegiving & S's sensemaking
	Arm's Length	Mutual Sense-censoring		
	Partner	Battle of Independence	Collaboration	

Source: Nagaishi [30].

**Fig. 1** A Stylized setting of the change initiator-recipient relationship

experiences of political struggles, mainly recognized as lost battles with the change initiators [37].

Nagaishi [30] postulated that sense-censoring *could be mutual between* the headquarters (change initiators) and subsidiaries (change recipients), primarily as the subsidiaries perform well and their bargaining power increases. The headquarters focuses on the cues of its subsidiary's bargaining power (e.g., sound financial performance) and can make sense that saying nothing is a plausible option to optimize the business group's benefits. The subsidiary extracts cues from the headquarters' policies (e.g., noninterference policies) and may make sense that their plausible alternative is to avoid any new action-taking suggested by the headquarters.

**Stylizing the transition processes of the change initiator-recipient relationship**

Building on the previous sensemaking-related research, the author stylizes a setting to explain the transition process of the change initiator-recipient relationship. Figure 1 presents the proposed setting.

This model has two players: a change initiator and a change recipient. It has an assumption that there are, broadly speaking, three types of images that the change initiator reflects the change recipient: follower, arm's length, and partner. The change recipient also has three images for the change initiator: commander, arm's length, and partner. This setting could be extended to and applied in more complex organizations.

A couple of the matched players gains the outcome, such as.

- i. If both of them imagine a "partner," both can collaborate based on their partnership.
- ii. If both of them are imagining "arm's length," both can get the state of mutual sense-censoring.

- iii. If the change initiator's image for the change recipient is "follower" and the change recipient's image for the initiator is "commander," they will choose a command-and-control governance mechanism.
- iv. If the change initiator's image for the change recipient is "follower" and the change recipient's image for the initiator is "partner," they may run into the battle of independence.
- v. If the change initiator's image for the change recipient is "follower" and the change recipient's image for the initiator is "commander," then the change initiator will choose sensegiving, and the change recipient will rely on sensemaking.

For example, Nagaishi [30] explained the historical transition pattern of the headquarters-subsidiary relationship of a Japanese MNC in the context of this stylization. Phase 1 spans the transition from "command-and-control" management to "the headquarters' (i.e., a change initiator's) sensegiving and the Thai subsidiary's (i.e., change recipient's) sensemaking" by starting up the change process proposed by the headquarters. The Thai subsidiary tried to understand the change project given to it by its "commander" but was not expressing their sensemaking since it was difficult to deviate from the familiar "command-and-control" relationship (namely, 'Sense-censoring for the Thai Subsidiary'). Phase 2 indicates that the relationship moved to a stable equilibrium that both the headquarters and the Thai subsidiary were opting to maintain a safe distance for proper coordination. Both sides had their stories about the floppy change project but did not want to risk opening Pandora's box ('Mutual Sense-censoring'). Phase 3 covers a step taken into the disruptive situation. The subsidiary's growing identity and need for more independence created an image gap between the headquarters and the Thai

subsidiary. The gap could be momentum to explore the focus on imagining possibilities and generating new ways to look at the relationship. Phase 4, in this setting, is an actualization process to find out a certain style of partnership to collaboratively execute something anew between the headquarters and the Thai subsidiary.

It is pedagogically more transparent if the setting is described with organizational performances and the players' payoffs. Thus, in the next section, the author formalizes the idea by introducing the game-theoretic structure in which both a change initiator and a change recipient seek their best responses in a given situation.

**Result: emergence of multiple equilibria**

This section presents a theoretical framework that may illustrate the relationship between successful change outcomes and change consultants' mindsets. The author formalizes a finite repeated game (and its equilibrium analysis) since doing so is a tractable approach to capturing organizational change responses in a dynamic context.

**Basic structure of the game (Stage 0)**

First, as a benchmark setting (Stage 0), the author introduces a simple game structure between a change initiator and a change recipient. Although a matched pair is assigned a project that demands their combined effort, the initiator and the recipient both optimize their individual profits in a given game-theoretic situation. The change initiator can choose one of two strategic images of the change recipient: {follower, arm's length}. On the other hand, the change recipient may opt for one of the two images of the change initiator: {commander, arm's length}. For analytical simplicity, the author restricts the equilibrium concept only to pure strategy equilibria and ignores the possibilities of mixed strategy equilibria throughout the game setting.

- (i) If the recipient chooses "commander" as the opponent's image, and the initiator chooses "follower" as the recipient's image, the relationship is called "command-and-control." This works well at the beginning of the change process and creates joint profit <6>. According to the unbalanced distribu-

tion based on the hierarchy, the change recipient gets 2, while the initiator receives 4.

- (ii) If the recipient chooses "arm's length" as the opponent's image, and the initiator chooses "follower" as the recipient's image, the relationship leads to a distant mismatch of each other's demand. The joint profit remains at <5>. According to the unbalanced distribution based on the hierarchy, the change recipient gets 2, while the initiator receives 3.
- (iii) If the recipient chooses "commander" as the opponent's image, and the initiator chooses "arm's length" as the recipient's image, the relationship also results in another type of distant mismatch of each other's demands. The joint profit again remains at <5>. The change recipient gets 2, while the initiator receives 3.
- (iv) If both players choose "arm's length," the relationship is called "mutual sense-censoring." This cold relationship hinders the realization of the potential joint capability, and the joint profit decreases to <4>. The change recipient gets 2, while the initiator receives 2.

Thus, the payoff matrix of this game for both players is summarized in Table 2. It is a simple game with a Nash equilibrium: (Commander, Follower)=(2, 4).

**Simple increase in joint profit (Stage 1)**

Next, as the relationship develops, they end up with a simple increase in their joint profit by clarifying each other's expected roles and coordination. Suppose that the

**Table 3** Basic structure of the payoffs (stage 1)

		The change initiator's image of the change recipient	
		Follower	Arm's length
The change recipient's image of the change initiator	Commander	(3, 7)*	(4, 5)
	Arm's length	(4, 5)	(4, 4)

\*Shows a Nash equilibrium

**Table 2** Basic structure of the payoffs (Stage 0)

		The change initiator's image of the change recipient	
		Follower	Arm's length
The change recipient's image of the change initiator	Commander	(2, 4)*	(2, 3)
	Arm's length	(2, 3)	(2, 2)

\*Shows a Nash equilibrium

increased joint profit is  $\langle 4 \rangle$ . Then, the payoff matrix of this stage for both players can be exemplified in Table 3. Again, the simple game has a Nash equilibrium: (Commander, Follower) = (3, 7).

**The stage of diagnostic interventions with diagnostic mindset (Stage 2-1)**

In the literature on the application of diagnostic (i.e., planned) and dialogic (i.e., generative) change, much has been written on the role of change practitioners [4, 16, 23, 25, 31]. For example, Nagaishi [31] describes the external change consultant’s significant role in building a collaboration capability by finding “diagnostic and dialogic approaches may co-exist not only in methods but also at the mindset level” [31], p.2). However, what has seldom been discussed is the relationship between change outcomes, choices of interventions, and the change mindsets of consultants. The author describes the relationship in the following game-theoretic setting.

At the beginning of Stage 2, the change initiator appoints a change consultant who equips a certain change mindset (diagnostic or dialogic) and takes the lead in making decisions on the choice of change intervention (again, diagnostic or dialogic). Let us consider a case that the change consultant has a diagnostic mindset and opts for diagnostic interventions (Stage 2-1).

- (i) If the recipient chooses “commander” as the opponent’s image, and the initiator chooses “follower” as the recipient’s image (i.e., command-and-control), the situation has a good fit with the change consultant’s planned and diagnostic approach. This works well, and the joint profit increases to  $\langle 12 \rangle$ . According to the unbalanced distribution based on the hierarchy, the change recipient gets 4, while the initiator receives 8.
- (ii) If the recipient chooses “arm’s length” as the opponent’s image, and the initiator chooses “follower” as the recipient’s image, the diagnostic intervention and mindset do not contribute to changing the members’ sensemaking and work poorly by the mismatch. It results in a poor change outcome, and the joint profit remains  $\langle 9 \rangle$ . According to the unbalanced distribution based on the hierarchy, the change recipient gets 4, while the initiator receives 5.
- (iii) If the recipient chooses “commander” as the opponent’s image, and the initiator chooses “arm’s length” as the recipient’s image, the diagnostic intervention and mindset again do not solve the mismatched sensemaking problem. The joint profit again remains at  $\langle 9 \rangle$ . The change recipient gets 4, while the initiator receives 5.

**Table 4** Diagnostic interventions with diagnostic mindset (Stage 2-1)

		The change initiator’s image of the change recipient	
		Follower	Arm’s length
The change recipient’s image of the change initiator	Commander	(4, 8)*	(4, 5)
	Arm’s length	(4, 5)	(4, 4)

\*Shows a Nash equilibrium

**Table 5** Diagnostic interventions with dialogic mindset (Stage 2-2)

		The change initiator’s image of the change recipient	
		Follower	Arm’s length
The change recipient’s image of the change initiator	Commander	(6, 6)*	(4, 5)
	Arm’s length	(4, 5)	(4, 4)

\*Shows a Nash equilibrium

- (iv) If both players choose “arm’s length,” the diagnostic intervention and mindset again do not solve the sense-censoring problem. The joint profit stays at  $\langle 8 \rangle$ . The change recipient gets 4, while the initiator receives 4.

The payoff matrix of this case for both players is shown in Table 4. The game’s unique Nash equilibrium is the upper-left in the table: (Commander, Follower) = (4, 8).

**The stage of diagnostic interventions with dialogic mindset (Stage 2-2)**

At this point, it is essential to state that there can be another scenario at Stage 2. Let us consider the case that the change consultant has a “dialogic” mindset and opts for diagnostic interventions (Stage 2-2).

Suppose the recipient sees “commander” as the opponent’s image, and the initiator regards “follower” as the recipient’s image (i.e., command-and-control). In that case, the situation fits well with the change consultant’s diagnostic intervention. The joint profit increases to  $\langle 12 \rangle$ , as in Stage 2-1. However, the consultant’s dialogic mindset works well for a more even profit

distribution orientation. The change recipient gets 6, while the initiator receives 6.

The rest of the payoffs are the same as those in Stage 2-1. The payoff matrix of this case is indicated in Table 5. Again, the game’s unique Nash equilibrium is in the upper-left in the table: (Commander, Follower) = (6, 6).

**The stage of dialogic interventions with dialogic mindset (Stage 3-1)**

The present study follows the setting in that the change consultant with a change mindset (diagnostic or dialogic) opts for another change intervention. At this point, the author introduces another assumption that the consultant intends to host large-scale dialogic interventions for inquiring members’ transformative engagement (Stage 3). Let us assume that the change consultant opts for the dialogic interventions with a dialogic mindset (Stage 3-1).

- (i) Let us suppose that the dialogic intervention develops the players’ collaborative capacity [3, 30]. This impact of the intervention is reflected in the setting by expanding the change initiator’s choice field to three strategic images of the change recipient: {follower, arm’s length, partner}. On the other hand, the change recipient may choose one of the three images of the change initiator: {commander, arm’s length, partner}.
- (ii) If both players choose “partner,” the relationship is called “collaboration” [30]. The purpose of the association is to sustain a win–win partnership for achieving mutually valuable goals [3]. The relationship is the most profitable in the sense that the joint profit increases to <14>. Based on the fair partnership, the change recipient gets 7, while the initiator receives 7.
- (iii) At this point, there are two different transition paths, depending on the events in Stage 2. If it was the case that a set of diagnostic interventions and a mindset was chosen in the previous

stage (i.e., Stage 2-1), Table 6 describes the new payoff matrix. The game has two Nash equilibria, i.e., (Commander, Follower) = (4, 8), and (Partner, Partner) = (7, 7). Among the two equilibria, (Commander, Follower) = (4, 8) is the most probable to realize in this stage since there is path-dependent inertia of Stage 2-1’s state of equilibrium (i.e., (Commander, Follower) = (4, 8)).

- (iv) On the other hand, if it was the case that a set of diagnostic interventions and a dialogic mindset was employed in the previous stage (i.e., Stage 2-2), Table 7 shows the new payoff matrix. Interestingly, the game’s unique Nash equilibrium is the lower-right in the table: (Partner, Partner) = (7, 7). This is the most profitable consequence of the game (the joint profit equals 14).

**The stage of a dialogic intervention with diagnostic mindset (Stage 3-2)**

At Stage 2, however, another scenario can be prepared. Let us consider the case where the change consultant has a “diagnostic” mindset and opts for dialogic interventions (Stage 3-2). It can be reasonable to assume that the consultant fails to cultivate the possibility to activate the

**Table 6** Dialogic interventions with dialogic mindset after Stage 2–1 (Stage 3–1, Part 1)

		The change initiator’s image of the change recipient		
		Follower	Arm’s length	Partner
The change recipient’s image of the change initiator	Commander	(4, 8)*	(4, 5)	(4, 5)
	Arm’s length	(4, 5)	(4, 4)	(4, 4)
	Partner	(4, 5)	(4, 4)	(7, 7)*

\*Shows a Nash equilibrium

**Table 7** Dialogic interventions with dialogic mindset after Stage 2–2 (Stage 3–1, Part 2)

		The change initiator’s image of the change recipient		
		Follower	Arm’s length	Partner
The change recipient’s image of the change initiator	Commander	(6, 6)	(4, 5)	(4, 5)
	Arm’s length	(4, 5)	(4, 4)	(4, 4)
	Partner	(4, 5)	(4, 4)	(7, 7)*

\*Shows a Nash equilibrium

**Table 8** Dialogic interventions with diagnostic mindset after Stage 2–1 (Stage 3–2, Part 1)

		The change initiator’s image of the change recipient		
		Follower	Arm’s length	Partner
The change recipient’s image of the change initiator	Commander	(4, 8)*	(4, 5)	
	Arm’s length	(4, 5)	(4, 4)	
	Partner			

\*Shows a Nash equilibrium

players' option of imaging "partner" each other due to the long-time association with the diagnostic mindset.

(iii) Again, there are two different transition paths, depending on the events in Stage 2. If it was the case that a set of diagnostic interventions and a diagnostic mindset was chosen in the previous stage (i.e., Stage 2-1), Table 8 summarizes the payoff matrix of this case. The game has unique Nash equilibrium, i.e., (Commander, Follower) = (4, 8).

(iv) If it was the case that a set of diagnostic interventions and a dialogic mindset was employed in the previous stage (i.e., Stage 2-2), the new payoff matrix can be described as Table 9. The game's one and only Nash equilibrium is the upper-left in the table: (Commander, Follower) = (6, 6). This is one of the sub-optimal outcomes of the game (the joint profit equals 12).

**Table 9** Dialogic interventions with diagnostic mindset after Stage 2–2 (Stage 3–2, Part 2)

		The change initiator's image of the change recipient		
		Follower	Arm's length	Partner
The change recipient's image of the change initiator	Commander	(6, 6)*	(4, 5)	
	Arm's length	(4, 5)	(4, 4)	
	Partner			

\*Shows a Nash equilibrium

**Discussion: emerging patterns of transition and their performance outcomes**

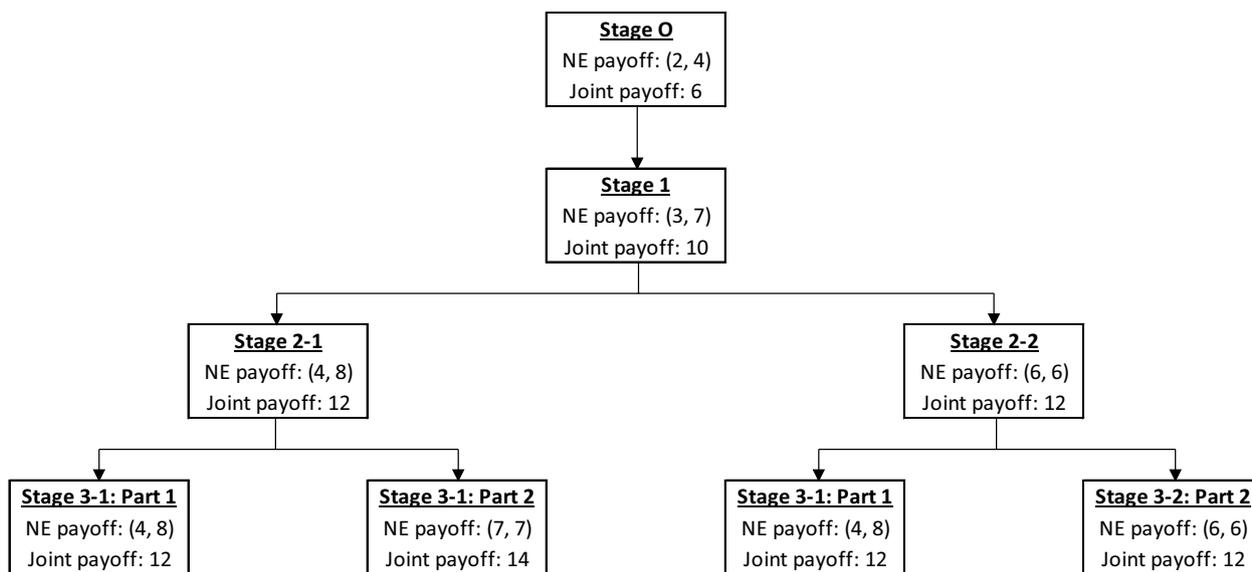
What the author developed in this section was to delineate an informative framework using a simple modeling technique. It helps extract lucid mechanisms, but one important caveat is the simplification's cost to fail to describe the full complexity of the realistic organizing. The author intends to offer this framework to provide an academic and practical platform that may invite a more applied orientation to the analysis of change mechanisms.

The presented model may be a good benchmark to show the possible co-existence of diversified patterns of change processes with different performance outcomes. It is interesting enough to note that relative organizational performance is path-dependent in the author's specification. Figure 2 illustrates the diversified transition patterns.

From the path-dependence analysis in Fig. 2, a long-run generalization of the transition patterns can be characterized as a pair of statements below.

**Proposition 1** *Successful change outcomes are highly probable with the dialogic mindset of change consultants, irrespective of the types of adopted OD methodologies.*

**Proposition 2** *Dialogic OD methodologies in the later stage may not lead to successful collaboration if the change consulting starts from the diagnostic interventions with a diagnostic mindset.*



Note: "NE" represents a path-dependent Nash equilibrium in the stage.

**Fig. 2** Possible co-existence of diversified patterns of change processes

**Table 10** Basic structure with abstract payoffs (Stage 0)

		The change initiator's image of the change recipient	
		Follower	Arm's length
The change recipient's image of the change initiator	Commander	(a/3, 2a/3)	(b/2, b/2)
	Arm's length	(b/2, b/2)	(c/2, c/2)

These two propositions are groundbreaking since they seem surprising for researchers and practitioners and may invite argumentative conjecture to discussions about consulting models and methodologies. In the present study's particular setting, one may quickly find that the optimal path for organizational change is from [Stage 2-1: Diagnostic interventions with a dialogic mindset] to [Stage 3-1: Dialogic interventions with a dialogic mindset].

On the other hand, these propositions are reasonably in line with the literature by integrating the predecessors' different theoretical assertions (e.g., [11, 12, 16, 26, 33] into a dialectical structure of modeling. The author's framework suggests a superiority of the dialogic mindset for successful change outcomes. Still, the consultants and other practitioners should be flexible in choosing the methodologies, considering OD processes' adaptive and idiosyncratic natures [31].

At this point, two directions of research development are essential. The first way (to be discussed in the following subsection) is to extend the game-theoretic model to a more abstract formulation for specifying the conditions under which socially optimal outcomes can be realized. The second direction (to be examined in the next section) is to check whether the deduced propositions are underpinned by qualitative and quantitative evidence.

**Extension to a more abstract formulation**

What the author developed in this section was to delineate an informative framework using a simple modeling technique. Now, let us consider a model with a more abstract formulation to define the conditions under which optimal outcomes emerge.

The extension model has the following basic structures. Again, the model has two players: a change initiator and a change recipient. A matched pair plays sequential games, being assigned a project that demands their combined effort. Let us describe a similar but (more abstract) repeated game-theoretic formulation from Stage 0 to Stage 3. The players' payoffs are abstractly defined as in Tables 10, 11, 12, 13, 14, 15, 16, 17, using four scholars, a, b, c, and d ( $d > a > b > c > 0$ ).

**Table 11** Stage 1 with abstract payoffs

		The change initiator's image of the change recipient	
		Follower	Arm's length
The change recipient's image of the change initiator	Commander	(2a/3, 4a/3)	(b, b)
	Arm's length	(b, b)	(c, c)

**Table 12** Stage 2-1 with abstract payoffs

		The change initiator's image of the change recipient	
		Follower	Arm's length
The change recipient's image of the change initiator	Commander	(a, 2a)*	(b, b)
	Arm's length	(b, b)	(c, c)

\*Shows a Nash equilibrium

**Table 13** Stage 2-2 with abstract payoffs

		The change initiator's image of the change recipient	
		Follower	Arm's length
The change recipient's image of the change initiator	Commander	(3a/2, 3a/2)*	(b, b)
	Arm's length	(b, b)	(c, c)

\*Shows a Nash equilibrium

**Stage 0 (Table 10)**

(i) If the recipient chooses "commander" as the opponent's image, and the initiator chooses "follower" as the recipient's image, the relationship is called "command-and-control." This works well at the beginning of the change process and creates joint profit  $<a>$ . According to the unbalanced distribution based on the hierarchy, the change recipient gets a/3, while the initiator receives 2a/3.

(ii) If the recipient chooses "arm's length" as the opponent's image, and the initiator chooses "follower" as the recipient's image (and vice versa), the relationship leads to a distant mismatch of each other's demand. The joint profit remains at  $<b>$ . According to the unbalanced distribution based on the hierarchy, the change recipient gets b/2, while the initiator receives b/2.

**Table 14** Stage 3–1 (Part 1) with abstract payoffs

		The change initiator's image of the change recipient		
		Follower	Arm's length	Partner
The change recipient's image of the change initiator	Commander	(3a/2, 3a/2)	(b, b)	(b, b)
	Arm's Length	(b, b)	(c, c)	(c, c)
	Partner	(b, b)	(c, c)	(d/2, d/2)

**Table 15** Stage 3–1 (Part 2) with abstract payoffs

		The change initiator's image of the change recipient		
		Follower	Arm's length	Partner
The change recipient's image of the change initiator	Commander	(3a/2, 3a/2)	(b, b)	(b, b)
	Arm's Length	(b, b)	(c, c)	(c, c)
	Partner	(b, b)	(c, c)	(d/2, d/2)

**Table 16** Stage 3–2 (Part 1) with abstract payoffs

		The change initiator's image of the change recipient		
		Follower	Arm's length	Partner
The change recipient's image of the change initiator	Commander	(a, 2a)*	(b, b)	
	Arm's Length	(b, b)	(c, c)	
	Partner			

\*Shows a Nash equilibrium

(iii) If both players choose “arm’s length” (mutual sense-censoring), this cold relationship hinders the realization of the potential joint capability, and the joint profit decreases to  $<c>$ . The change recipient gets  $c/2$ , while the initiator receives  $c/2$ .

**From Stage 1 to Stage 3 (Tables 11, 12, 13, 14, 15, 16, 17)**

For Stages 1 and 2, the simple modifications define the magnitudes of the increase in their joint profit. Stage 1

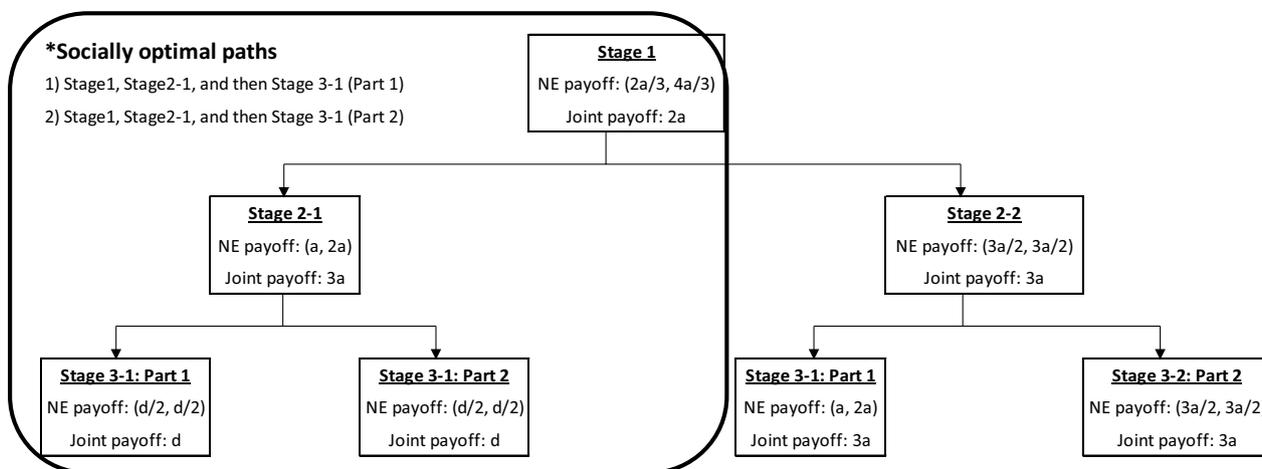
results in doubled joint profits for all four cases by role clarifications. Stage 2 realizes a 50% increase in the joint profit only for the follower-commander combination since it has a good fit with top-down diagnostic interventions.

In the settings of Stage 3-1 (dialogic interventions with the consultant’s dialogic mindset), if both players choose “partner” (i.e., collaboration), the relationship is the most profitable in the sense that the joint profit increases to the scalar  $d$  (i.e.,  $d > 3a$ ). Based on the fair partnership, the change recipient gets  $d/2$ , while the initiator receives  $d/2$ .

Following the formal game-theoretic analysis (e.g., [18, 19], the author introduces a concept of a subgame perfect Nash equilibrium (in which all the game players optimize their payoffs in every stage of the game) in this paper’s dynamic game structure. In addition, the optimal outcome of this society is the path from Stage 1 = {Commander, Follower}, Stage 2 = {Commander, Follower}; and then to Stage 3 = {Partner, Partner}, because the joint profits are the highest at every stage of the game (Fig. 3). Then, when does the subgame perfect Nash equilibrium result in the socially optimal outcome in this setting?

**Table 17** Stage 3–2 (Part 2) with abstract payoffs

		The change initiator's image of the change recipient		
		Follower	Arm's length	Partner
The change recipient's image of the change initiator	Commander	(3a/2, 3a/2)*	(b, b)	
	Arm's Length	(b, b)	(c, c)	
	Partner			



Note: 1) Condition #1: the change initiator appoints a change consultant who equips a dialogic mindset at Stage 2.  
2) Condition #2: A payoff parameter  $<d>$  is greater than  $<4a>$ .

**Fig. 3** Socially optimal paths under two conditions

They can be equivalent if the following two conditions hold.

**Proposition 3** *As a special case, the socially optimum outcome (Stage 1 = {Commander, Follower}; Stage 2 = {Commander, Follower}; and Stage 3 = {Partner, Partner}) becomes a subgame perfect Nash equilibrium, if and only if;*

1. At Stage 2, the change initiator appoints a change consultant who equips a dialogic mindset and;
2. A payoff parameter  $<d>$  is greater than  $<4a>$ .

The first condition is necessary to make the players' social optimal option at Stage 3 ((Partner, Partner) =  $(d/2, d/2)$ ) emerge. The second condition is also critical since it realizes the highest payoffs of all the individual players by opting for the "partner" strategy in Stage 3 (Tables 14 and 15). These findings imply that the socially optimal outcome emerges as a result of players' individual profit maximizations if a change consultant has a dialogic "mindset" and dialogic "intervention skills" that lead to high economic performances.

Building on research that regards members' change responses as an economic activity [29], the author proposes that the successful change efforts may (at least partially) be explained in the context of the players' optimization mechanisms. It seems reasonable to assume that no one takes risks to speak up in a change program without any economic return. In other words, people are apt to be constrained by the quo so far as their payoffs are not in danger. However, "if the organization is in a serious

survival crisis, the cost of keeping the cultural status quo can be too high to stay silent" [29], p. 41). Further arguments on change response as an economic activity give a more lucid account of change performances in future research.

**Evidence for the impacts of diagnostic and dialogic OD mindsets**

Two critical propositions emerge out of the author's preliminary game-theoretic model. One is that successful change outcomes are highly probable with the dialogic mindset of a change consultant. Perhaps even more interesting is that dialogic OD methodologies in the later stage may not create successful collaboration if the change initiative starts with the mindsets of change consultants' diagnostic mindset. It seems reasonable to assume that successful transformational efforts can occur if people are allowed and encouraged to make change happen with the generative and adaptive (i.e., dialogic) mindset. Some recent studies reviewed below, broadly speaking, support the author's argument about the impacts of diagnostic and dialogic OD mindsets on the desired outcomes.

Bushe and Kassam [5] executed a meta-case analysis of appreciative inquiry (AI) cases. They found that most transformational change cases followed dialogic orientation at the mindset level, focusing on changing how people think and supporting self-organizing change processes. On the other hand, most incremental change examples applied a diagnostic approach at the mindset level, prioritizing goal-oriented tangible efforts.

Hastings and Schwarz [16] explored change practitioners' options between diagnostic and dialogic OD

approaches in 79 cases of organizational change. They concluded by insisting that: (1) the dialogic OD cases had an overall combined success rate (90%) than that of pure diagnostic OD cases (33%). The differences in the success rates approaches have important implications for the success of organizational change initiatives, and (2) the oscillation examples (from diagnostic to dialogic OD) lead to a higher success rate (93%) than that of pure dialogic OD cases. These findings are groundbreaking, but a further detailed investigation is needed in terms of the distinction between “(diagnostic/dialogic) methodologies” and “(diagnostic/dialogic) mindsets” [26, 33].

In addition, there are some single case studies related to this issue. An instance of them is Nagaishi’s [31] interpretive case study that used a Japanese MNC as a case in point and delineated that the external consultant’s dialogic mindset had a critical impact on building a collaboration capability using the diagnostic and dialogic interventions properly. They chose diagnostic interventions to foster the predictability of the whole picture for sustaining the organization’s psychological safety. Meanwhile, the external consultant hosted a dialogic space to activate the member’s prudent risk-taking. The study concluded that diagnostic and dialogic approaches could be adequately blended when consultants maintain the dialogic mindset as an anchor of change initiatives.

Stensaker and the collaborators provided another case study focusing on sensemaking during strategic change processes (how organizational members make sense of organizational change over time). Their analysis of three different business units (BU) in one company introduced an example of a corporate change initiative. One of the BUs “focused on careful and detailed top-down planning through representative but limited participation. The result was a lack of understanding of what changes should be made and how to implement change. Employees struggled to make sense of the changes and were unable to act in any consistent manner.” In contrast, the change was the most transformative and successful in the BU that “used a different approach. They relied on extensive participation and negotiations with employees during planning and decision-making. The result was a unified account of change in the form of a customized change plan that was implemented in a stepwise and cumulative process through consistent action” [35], p. 175).

In the literature examining the outcomes of diagnostic and dialogic approaches, there has been substantive evidence that the dialogic mindset is more reliable than conventional diagnostic methods, depending on certain contingencies. Future research 1) could uncover the full account of the differences in outcomes by rigorous quantitative and meta-analytic research, and 2) could

empirically probe the extent to which the oscillation between diagnostic and dialogic mindsets (blended OD approach) contributes to the high success rate of organizational change.

### **Concluding comments, limitations, and directions for future research**

This article has suggested integrating the predecessors’ different theoretical assertions in the author’s game-theoretic settings. The following two propositions are deduced from the model (1) the change outcomes can be more successful if they are coupled with the dialogic mindset of change consultants, irrespective of the types of the adopted OD methodologies, and (2) dialogic methodologies in the late stage may not lead to successful collaboration if the change consultants choose to employ diagnostic interventions with a diagnostic mindset at the early stage of the initiative.

Although these propositions are supported by evidence in the recent literature, there are limitations in this study. First, upon examining the psychological structure in the context of change processes, the author’s specifications (specifically, their payoff specifications) in the game-theoretic model are somewhat concrete and ad-hoc, although they are employed for analytical simplicity. Therefore, finding a more abstract theoretical framework for analyzing comparative statics and equilibrium stability conditions seems critical.

Second, the propositions deduced from the presented model should be investigated by rigorous quantitative and meta-case analytic methods. In addition, to confirm the robustness of the propositions, one must inevitably broaden the outlook of international comparison. Specifically, it must be noted that data from non-Western countries are highly scarce, and much still needs to be done to bridge the research gap. Mindsets can vary systematically between Eastern holistic orientation and Western analytic culture [27, 28].

Finally, the present study needs to be validated by more grounded explanations on “how and why” the co-existence of diagnostic and dialogic mindsets occurs. In this respect, Nagaishi [31] shows a complementary and grounded approach to fill the gap. One final point to consider is handling culture-specific factors to change. Specifying proper culture-specific interventions is one of the most crucial roles for all OD consultants to deal with collective reactions to organizational change [10, 17]. In the present study’s context, a question is raised, i.e., “To what extent can the relationship between successful change outcomes and the mindsets of change consultants be culture-specific?” Such interesting questions deserve future inquiry into the subject.

**Abbreviations**

OD	Organization development
MNC	Multinational corporation
BU	Business unit

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