A Framework for the Study of Positive Deviance in Organizations

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Abstract

Positive deviance describes behavior that deviates from salient norms, yet is positive in its intention or effect. It has received considerable attention in the sociology literature, and is increasingly being studied in the context of the workplace. The development of a cumulative tradition in this domain, however, is hindered by the continued coexistence of multiple definitions of positive deviance in organizations and the use of various measurements and research designs. In this paper, we synthesize existing definitions and approaches to the organizational study of positive deviance, integrate them into a coherent conceptual framework, and offer methodological advice and illustrations.

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1. Introduction

The concept of deviance has been of interest to sociologists for many decades, with early research primarily focusing on deviance as an attribute of individuals (e.g., Merton 1957; Coser 1962; Katz 1975; Thio 1978; Dodge 1985). Studies to date have predominantly focused on negative forms of deviance, but interest in positive deviance has been increasing (e.g., Dodge 1985; Heckert and Heckert 2002; Shoenberger et al. 2012). Interest in deviance has also spread from sociology to other research areas, such as nutrition (e.g., Pascale et al. 2010; Zeitlin 2009), criminology (e.g., Heckert and Heckert 2004), education and development (e.g., Mendez et al. 2002), and organizational scholarship (e.g., Galperin 2012; Spreitzer and Sonenshein 2004; Pascale and Sternin 2005; Vadera et al. 2013; Warren 2003), which is our area of interest.

A variety of perspectives have been applied to understanding deviance at work. Examples include behaving unethically for positive reasons (e.g., Umphress and Bingham 2011; Umphress et al. 2010), challenging existing practices and norms for the good of the company (e.g., Burris 2012; Detert and Burris 2007; Dyne et al. 2003), and behaving proactively despite supervisors' disapproval (e.g., Grant et al. 2009). Collectively, the literature suggests that employees at work do engage in a variety of behaviors that could be seen as both *deviant* and *positive*. However, because existing studies use various conceptualizations and research designs, studies do not build strongly on previous research, which, in turn, hampers the development of a coherent body of knowledge (Hackman 2009). Consequently, clear evidence remains scarce for reasons why and how positive deviance occurs, whether it truly and unequivocally impacts organizations positively, and which antecedents and contingency factors influence occurrence and consequences. In this manuscript, we aim to take two necessary steps towards the establishment of a coherent cumulative tradition of *understanding deviant behavior within organizational contexts*.

First, we review literature on deviance in sociology and in organizational literature and synthesize existing conceptualizations and study designs into an

integrated conceptual framework of positive deviance[1]. Second, we derive research design archetypes that can guide future studies of positive deviance and provide methodological advice for key stages of these research designs. We illustrate selected points of advice in short vignettes based on our own work in a large retail organization.

2. Researching Positive Deviance in Organizations

2.1. The origin of deviance research in sociology

From the onset of deviance research, two streams have been developing in parallel—one focusing on negative deviance, the other on positive deviance. Wilkins (1962, p. 46) defined the acts of individuals that conform to a norm as the middle of a continuum with extreme negative and positive behavior at the poles.

Much of the early research particularly addressed behavioral norms and values in societies and the negative deviance from these norms, such as crime or alcoholism (Delamater 1968; Akers 1968; Dodge 1985). The positive end of the spectrum surprisingly received limited support and attention (Ben-Yehudaa 1990), despite the early work addressing positive deviance. Merton (1957, pp. 188), for example, developed a theoretical framework to explain positive deviance and its effects on cultural goals and institutional means. This concept distinguishes five modes of adaption: conformity, innovation, ritualism, retreatism and rebellion, with each mode having different effects on the acceptance of prevailing norms or their rejection and substitution of new values (Merton 1957). Merton (1957) regards the "heavy emphasis on wealth as a basic symbol of success" (p. 193) as the central motive of deviant behavior. This cultural emphasis on success and a "[…] social structure which unduly limits practical recourse to approved means for many set up a tension toward innovative practices which depart from institutional means" (p. 203).

Dubin (1959) extended Merton's (1957) model substantially by identifying 14 different types of deviant behavior by distinguishing different subcategories in each mode that provided a detailed explanation of positive deviance under different conditions (e.g., institutional and operational invention). Coser (1962) also addressed

[1] In the remainder of this manuscript, we will no longer specify the context every time we use the term *positive deviance*, yet it will be used to refer to positive deviant behaviours in the workplace unless specified otherwise.

the positive deviant behavior of individuals and explored its positive effects within groups.

"[…] in groups which place no value on innovation, an innovating response will be considered truly nonconformist. […] This might then lead to a conflict within the group over the issue raised. If this happens, the innovator has transformed individual nonconformity into group conflict and has raised it from the idiosyncratic to the collective level. The innovator's behavior may serve to reduce the chances that adherence to the routines of yesterday render the group unable to meet the challenges of today" (Coser 1962, p. 178).

Given these conceptualization efforts, the focus of much research remained largely on negative forms of deviance (Ben-Yudaa 1990). However, the conceptualization and boundaries of deviance were further scrutinized and sharpened, as well as taught to sociology students (Jones 1998), culminating into a sociological definition of positive deviance that refers to "any type of behavior or condition that exceeds the normative standards or achieves an idealized standard and that evokes a collective response of a positive type" (Heckert and Heckert 2002, p. 466).

It was around this time that the application of positive deviance showed some promising results in the context of change and leadership scenarios (e.g., Crom and Bertels 1999) and gradually formed a new movement in the organizational literature (Dutton and Quinn 2003). Similar to some of the research in sociology, initial efforts focused on negative deviance behavior at the workplace (Robinson and Bennett 1995), but positive deviance research also started to develop.

2.2. Positive Deviance in Organizational Research

In organizational scholarship, positive deviance has been defined as "intentional behaviors that depart from the norms of a referent group in honourable ways" (Spreitzer and Sonenshein 2003, p. 209). Various approaches exist to studying positive deviance in organizations. In our review of the literature, we noted that the most often cited definitions for positive deviance in organizations (e.g., Galperin 2012; Spreitzer and Sonenshein 2004; Pascale and Sternin 2005; Vadera et al. 2013; Warren 2003) varied in three important ways:

1) whether they refer to behavior versus an outcome,

2) why the behavior or the outcome is considered to be 'positive,' and

3) why the behavior or the outcome is considered to be 'deviant.'

These variations have important implications for the design and conduct of positive deviance study, and for the contributions and implications such research can provide. Consider the following illustration of these three variations using the example of one of our own field studies - a bakery department of a supermarket retail organization. First, in this context, positive deviance could refer to how bread is baked (i.e., behavior) or to how tasteful the bread is (i.e., an outcome of baking bread). Second, the way of baking bread (behavior) or the taste of the bread (outcome) can be called 'positive' for various reasons: because of the intention of the baker to make good bread, the limited resources used, an evaluation of the taste by a third person, etc. Third, the bread baking behavior or the taste of the bread can be called 'deviant' for a number of reasons: for example, because the baker breaks rules in the process (behavior) or because most other breads have a very different taste (outcome). Let us discuss these three differences in greater detail:

1) **Behavior versus outcome**:

   The first difference concerns the *object* of positive deviance: Some researchers define positive deviance as a work results measure, such as exceptional performance or unexpected success (e.g., Pascale and Sternin 2005), while others focus on exceptional behavior (e.g., Galperin 2012; Spreitzer and Sonenshein 2004). In other words, some refer to the outcome of behavior to define positive deviance, whereas others refer to the behavior itself. Still others refer to their definition of positive deviance to both deviance in behavior and outcome. Interestingly, while the latter view has been suggested and anecdotally illustrated by Pascale et al. (2010) and Seidman and McCauley (2008), it has to-date been largely unexplored in research. Table 1 presents these three possibilities schematically.

   --- insert Table 1 here ---

   It should be noted that these three variations are similar to the various approaches described in sociology, where positive deviance can refer to over-conforming or conforming to the idealized level of a norm (similar to the outcome focus), as well as to non-conformance that is positively evaluated (similar to behavior focus) or to both (Heckert and Heckert 2002; Shoenberger et al. 2012). This choice of the object of the definition is important. Depending on how the object of positive deviance is defined and understood, an empirical operationalization and examination of the construct will differ considerably, as

will also not only the determinants and consequences of interest but also the findings from related empirical studies. Table 2 summarizes and illustrates different conceptualizations and their respective object of deviance found in the literature, together with relevant determinants and consequences.

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2) **Why behavior/outcome is positive:**

The definitions that focus on behavior vary in how they conceptualize the *positive* aspect in positive deviance. Some have argued that positive intent in the enactment of behavior or—in accordance to the reactivist approach—a positive direction of deviance as perceived by a reference group is sufficient (Galperin 2012; Spreitzer and Sonenshein 2004); others argue that central to the notion of positive deviance is the existence of a positive effect on the organization, the reference group or other organizational members (Vadera et al. 2013). A third group refers to a strategic effect, i.e., an effect on performance or success (e.g., Cohn 2009; examples in Pascale and Sternin 2005; Pascale et al. 2010; Seidman and McCauley 2008).

3) **Why behavior/outcome is deviant:**

A third difference exists in how *deviance* is conceptualized. One strand of research (e.g., Kim et al. 2008; Seidman and McCauley 2008) looks at deviance in the statistical sense of the word: behavior that the majority does not engage in or that is significantly different from the average in itself or in its outcomes. A second strand of research focuses on deviance as a departure from norms. Organizational norms are informal or formal rules that regulate and regularize behavior in organizations (Bennett and Robinson 2000; Feldman 1984).

While seemingly subtle, further differences in conceptualization imply differences in the interpretation of deviance that affect the boundaries and therefore discriminant validity of the positive deviance concept. For example, Warren (2003) and Vadera et al. (2013) posit that organizational citizenship behavior (OCB) may in certain cases be a form of positive deviance. OCB is a term that describes “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (Organ 1988, p. 4). Vadera et al. (2013) suggest that a whole range of discretionary and positive

behaviors can manifest as positive deviance: taking charge, extra-role behaviors, creative performance, expressing voice, whistle-blowing and prosocial behaviors (Vadera et al. 2013).

Others argue that positive deviance is distinct from these in that they do not necessarily imply a departure from norms (i.e., deviance), or, if they do, only in a minor way (Galperin and Burke 2006; Spreitzer and Sonenshein 2004). Operationalizing positive deviance as one of the mentioned constructs would not allow making general statements about positive deviance–only conditional ones. For example, if positive deviance were operationalized as OCB and measured accordingly (e.g., Lee and Allen 2002), any conclusion referring to positive deviance would have to relate to the condition that the context-specific manifestation of OCB deviates from the norms of the referent group.

2.3. Differences in the Choice of Research Designs for Studying Positive Deviance

Similar to the above-discussed differences in definition, the literature also shows a variety of approaches in use for the identification and examination of positive deviance in the workplace. The two approaches that have gained most traction are the statistical approach and the normative approach (Cameron and Caza 2004; Heckert 1998; Spreitzer and Sonenshein 2004; Warren 2003). Both approaches have been applied successfully in various domains; Table 3 provides an overview.

The statistical approach identifies deviance on the basis of a statistical examination of behavior or its outcomes (Heckert 1998; Spreitzer and Sonenshein 2004). This approach is based on the assumption that variance in behavior and variance in outcomes follow a normal distribution. Based on this distribution, thresholds are set above (or below) that which an outcome or a behavior is considered positively (or negatively) deviant from what is considered to be normal (typically defined as a confidence interval). The advantage of this approach is that it allows for a very clear identification of deviance—be it in behavior or outcome. It does not, however, provide any guidance on how to study positive deviance once identified. In other words, the approach can illuminate *that* positive deviance exists but remains silent about *how* or *why* the deviance occurs.

This limitation is contrasted by the second dominant approach to studying positive deviance, focusing on the normative aspects of deviance (Spreitzer and Sonenshein 2003; Warren 2003). This approach is used primarily for gaining a rich

understanding of what constitutes deviance. It studies the phenomena as well as their context, the behavior and the norms, the deviant person and the reference group. The disadvantage of this approach is that conclusions based on it can typically not be generalized across people and contexts: it focuses on specific instances of deviance within a substantive domain and does not attempt to measure or test aspects of its nature, determinants, or outcomes. Table 3 provides an overview of selected positive deviance studies and their respective definition and research method.

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Galperin and Burke (2006) and Galperin (2012) were the first to attempt bridging both approaches by constructing, validating, and using a generalizable measure for positive deviance to study its boundaries and relations to other constructs. Their 9-item measurement scale forms an operationalization of the second definition presented in Table 2 (B), and measures two dimensions: positive deviance directed toward the organization and positive deviance directed toward other individuals. The scale measures positive deviance according to the normative view, yet still allows falsification and thus generalization across different contexts.

The disadvantage, however, is that it is less context-specific and therefore susceptible to lower content validity and reliability in how it identifies deviance within a particular substantive domain (e.g., healthcare versus retail versus manufacturing). Also, the scale refers to norms that have been captured in rules, procedures, and orders (e.g.: over the past year, how often have you "violated company procedures in order to solve a problem?" (Galperin 2012, p. 2997)). Positive deviance can also constitute a deviation from implicit norms or from generative work practices and routines, "the way we do things around here," that are not formalized in procedures or policies (Feldman 1984; Spreitzer and Sonenshein 2004). Finally, in terms of reliability, it relies on an adequate judgment of what constitutes deviance by the individual respondent; this judgment could be different from the one made by the reference group. These limitations are invariably linked to the use of a self-administered survey, and other methods of data collection and analysis will have other well-known limitations.

3. A Framework for the Study of Positive Deviance

We now propose a framework for the study of positive deviance. This framework provides linkages between the chosen conceptualization of positive deviance and the appropriate research design. The central argument of the framework is that while limitations posed by different research methods are a given, their impact on the quality of research findings will depend on the adopted definition of positive deviance. In what follows, we integrate the existing approaches to the conceptualization of deviance and also describe important considerations for determinants and consequences of interests. Next, we derive generic archetypes of research designs from that framework to study any chosen definition and scope.

We start developing our framework by differentiating behavior into deviant and non-deviant, i.e., conforming behavior. Conforming behavior may entail those procedures that are prescribed formally (e.g., in processes, norms, or policies) as well as those that emerge generatively as "the way we do things around here" and thus characterize norms in the sense of generally accepted behaviors. Deviant behavior then characterizes those procedures that are different from the prescribed or emergent ways of doing work. In analogy, we classify the outcomes of behavior as either deviant or non-deviant. Measures for behavioral outcomes, such as quality and quantity of products or services provided, can similarly be considered as 'normal,' that is, as expected or even as prescribed, or as deviating from such norms or expectations.

The framework that we present allows studying both ends of these two dimensions—behavior and outcomes—and their combination:

A. deviance in outcomes of behaviors, i.e., achieving different things,
B. deviance in the structure of behavior itself, i.e., doing things differently, or
C. deviance in both, i.e., doing things differently and thereby achieving different things.

Finally, independent from the chosen conceptualization of positive deviance as A (outcomes), B (behavior) or C (both), any particular study is usually interested in exploration and/or testing of determinants (D) and/or consequences (E) of positive deviance (such as those summarized in Table 2). This combination of variables is captured in the framework presented in Figure 1.

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The framework illustrates the three possible definitions of positive deviance as presented in Table 2, showing that determinants (D) and consequences (E) can be studied, regardless of the definition. Depending on which definition is adhered to, any study will combine the different elements of the presented framework in different ways:

A When positive deviance is solely defined on the basis of outcomes (e.g., consistently outperforming other bakeries), determinants of positive deviance are not specified to be necessarily deviant or non-deviant. As such, determinants of interest (D) may include deviant behavior, non-deviant behavior, and a whole range of other factors such as, in the bakery example, the local customer groups, the lay-out of the bakery, or the local competition. Whereas positive deviance in this case is an outcome in itself, further consequences may be of interest as well (E), e.g., the effect of this consistently top-performing bakery department on the sales of other products that are displayed in, or near, the bakery department.

B When positive deviance is solely defined on the basis of behavior (e.g., decorating cakes), the definition does not specify whether these behaviors lead to any specific outcomes. Therefore, consequences of interest may include both regular and deviant outcomes, e.g., the effect of decorating cakes personally on customer satisfaction, resource use, or sales. Determinants of interest can include a variety of factors (D), e.g., the motivation of the bakery staff members.

C When positive deviance is defined on the basis of behavior *and* outcomes, only deviant behavior that explains deviant outcomes is considered as positive deviance (e.g., strategic price reductions that dramatically reduce waste). Determinants can again include a variety of factors (D) that predict those deviant behaviors that create deviant outcomes (e.g., experience of the bakery manager in sales), where consequences are deviant outcomes by definition and other regular outcomes (E), e.g., having more shelf space available for other products, having a higher profit contribution, etc.

Independent from the choice of definition, every study of positive deviance consists of the three steps presented below (based on, amongst others, Crom and Bertels 1999; Pascale et al. 2010). The actions within the three steps, however, will slightly differ according to the chosen definition:

1. *discover* positive deviance, whether it is in
    a. outcome (A),
    b. behavior (B), or
    c. both (C).
2. *explore* positive deviance and its possible determinants (D) and consequences (E), and
3. *test* effects of
    a. positive deviant behavior on positive deviant outcomes (C – only when adopting the third definition of positive deviance),
    b. determinants on positive deviance (D), and
    c. positive deviance on consequences (E).

Vignette 1 illustrates these design choices based on our own work concerning the bakery procedures in a large retail organization. In the next sections, we discuss the methodological challenges presented in each of the three steps of the design and for each chosen definition.

Vignette 1: Positive deviance in bakery procedures according to definition C

We studied whether and how positively deviant outcomes that were observed in some standardized bakery trading departments in a large retail organization could be explained by positive deviant behavior (definition C). Out of a sample of 652 in-store bakery departments, we identified 14 bakeries that achieved positive deviant outcomes (i.e., that sold significantly more bakery products than did others under normalized environmental conditions) and a reference group of 14 bakeries that were comparable in terms of extraneous variables but produced non-deviant outcomes (step 1a: see section 4.1). Through exploratory case studies in both groups of bakeries, we then set out to find positive deviant behaviors that could explain these positive deviant outcomes (step 1b: see section 4.2) and to explore possible determinants (E) of these deviant behaviors (step 2: see section 4.2). We found out, for example, that bakeries with positive deviant outcomes presented warm bread where this was not allowed, developed innovative pricing strategies, and strategically minimized the offer at the end of the day in order to minimize waste; both were uncommon procedures that—although not explicitly discouraged—were executed 'under the radar' for fear of reprimands. Based on our observations, we hypothesized that these behaviors were more frequently engaged in by employees who were—amongst others—more

motivated and more highly skilled. In a third step, we measured and tested the influence of all observed positive deviant behaviors on the outcome measures (step 3a: see section 4.3) and retained only those that were related to these metrics, i.e., those that explained the positive deviant outcomes (C). Finally, we tested the effects of the hypothesized determinants (motivation and skills) on those positive deviant behaviors that explained the positive deviant outcomes (step 3b: see section 4.3).

4. Methodological Challenges in Studying Positive Deviance

4.1. Discover Positive Deviance

In order to study positive deviance, the first step is to discover instances of positive deviance in a pool of candidate subjects or behaviors. The execution of this step is dependent on the chosen definition. For instance, where positive deviance is viewed as deviant behavior with honorable intentions (B), searching for positive deviance could be performed through qualitative inquiries such as interviews or participant observations, or it may rely on survey self-reports (e.g., Galperin 2012). These options are discussed, respectively, in the second step (exploration) and third step (testing) of our three-step approach. However, in case a different definition is adopted (A and C), positive deviance can only be found in persons or groups that produce significantly different (better) outcomes. To identify such types of positive deviance, the statistical approach is more conducive to purposefully selecting a sample that maximizes the chance of observing the studied phenomena, i.e., positive deviance (Cooper and Schindler 2006; Coyne 1997).

The goal, then, is to identify the subjects (e.g., organizational entities or members of the workforce) that produce positive deviant outcomes under normalized environmental conditions. To that end, the unit of analysis (e.g., an individual, team, department, or division) and key outcome measures have to be defined. These are interdependent and should be defined, such that the outcomes produced by different units can be compared, based on available data. The level of analysis should also be chosen in such a way that a sufficient number of units exists to allow systematic analysis of differences.

Positive deviant outcomes refer to outcomes that are significantly better than those in an expected threshold (e.g., the average). Outcomes of interest vary

according to the business context. In a hospital, for example, metrics of interest may be the total number of treated patients, the mortality rate or patient relapse (Øvretveit 2001) or facets of nurse-patient communication (Kim et al. 2008). In a manufacturing company, the speed and efficiency of production may be targeted. It is important that the selected metrics accurately reflect the outcomes of interest (content validity) and that they are being measured, or can reliably be measured, at the level of the unit of analysis (instrumentation validity).

Once the unit of analysis and the metrics to measure outcomes have been defined, the threshold needs to be set that separates average from positive deviant values for any given outcome. Kim et al. (2008), for example, studied nurses (the unit of analysis) and how effective they were at communicating with patients (the outcome), defining positive deviants as the ones with top 10% scores for facilitative communication (the threshold). If the sample is large, stricter thresholds should be enforced to avoid Type-1 error inflation due to large sample sizes (Lin et al. 2013). When multiple metrics are used, positive outliers can be identified for each metric or for two-dimensional combinations of interdependent metrics. In the latter case, positive deviant units appear as positive outliers in an n-dimensional comparison of metrics. Figure 2 presents an example of the identification of positive outliers based on three performance dimensions. Vignette 2 presents an example of how this approach was operationalized in our study of bakery trading departments.

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Vignette 2: The identification of bakery departments with positive deviant outcomes

In the example from our own work presented in Vignette 1, we defined a positive deviant outcome achieved by bakery trading departments of a large retailer on the basis of, amongst others, contribution to store sales (bakery sales divided by store sales), customer penetration (bakery customers divided by store customers) and total employee cost (the largest cost factor in these departments). For each combination of these three metrics, we plotted the 95% confidence interval around the linear estimation (as shown in Figure 2a). Bakery departments that had a significantly higher sales contribution than did other departments with similar employee cost, for example, were considered positive deviant outliers for this two-dimensional relation. However, only if they also had significantly higher contribution, given their customer

penetration, and significantly higher customer penetration, given the employee cost, were they considered to be positive deviants (as shown in Figure 2b).

4.2. Explore Positive Deviance, its Determinants and its Consequences

Whereas the aim of the first step is to discover instances of positive deviance, the second step aims at explore the concept in more depth to gain a deeper understanding of positive deviance and its possible determinants and consequences. Given that deviance is context specific and often enmeshed in complex social or institutional systems (Pascale et al. 2010), exploring positive deviance generally favors the use of qualitative methods (Denzin and Lincoln 2005) that allow for the exploration of behavior in context. Four groups of factors are of interest in this phase: positive deviance in itself, determinants of positive deviance, consequences of positive deviance, and extraneous variables to rule out rival hypotheses about potential determinants and consequences.

4.2.1. Exploring positive deviance.

Exploring positive deviance as an outcome (A) consists mainly of evaluating whether the measure(s) used to define positive deviance are reliable (accurate and stable across measurement instances) and valid (accurately measuring the outcome of interest). For example, in our own study of bakery departments, a measure of interest was the surface area covered by bakery departments. However, we found that the official floor plans did not correspond to the actual size of the bakeries. As a result, we had to exclude this measure from further analyses.

Exploring positive deviance as deviant behavior with positive intent (B) or positive outcomes (C) means that deviant behavior has to be discovered first (step 1). This consists of meticulously studying behavior and comparing this behavior to the norms of the referent group. A judgment has to be made whether behavior complies, or deviates from, these norms and whether this deviance or the deviant intention can be considered to be positive or not. As such, this phase serves as the first step of a study focusing on positive deviant behavior (B) or the second of a study focused on both behavior and outcomes (C): finding positive deviant behavior (see Table 4).

Judging deviance from norms is usually easiest through a comparison of behavioral patterns with structured procedures that are documented in the form of

rules, guidelines, or policies. Often, however, norms and routines are implicit and not documented (Feldman 1984). In that case, at least three not mutually exclusive possibilities exist. The most objective, but also the most resource intensive option, is to observe a representative sample of units and to make an evidence-based judgment whether certain behavior deviates from the norm or not. This can be done by inductively coding all observed behavioral patterns (Lieber and Weisner 2010), and then evaluating the consistency of behavior across different cases and identifying deviations from consistent patterns. A second possibility is to have a representative sample of members of the reference group judge patterns of behavior as deviant or not (Spreitzer and Sonenshein 2004). The third option that is best combined with one of the previous approaches is to have a group of domain experts make that judgment call.

As for the directionality of the deviance, a boundary condition is that no hypernorms are violated (e.g., Vadera et al. 2013; Warren 2003), meaning that the deviant behavior has no negative impact on groups other than the reference group or on society as a whole. Tax evasion, for example, may be beneficial to an organization, but it negatively impacts society as a whole. Therefore, it does not qualify as positive deviance. Once this condition is satisfied, the positivity of deviant behavior depends on the definition: either a positive intent is a sufficient condition (B), or there has to be a positively deviant effect (A).

Qualitative evidence for the effect of positive deviant behavior can be derived in the exploration phase. When certain deviant behavior is consistently engaged in by units of analysis producing positive deviant outcomes and not engaged in by other units of analysis, there is reason to believe this deviant behavior explains part of the deviant outcomes. Arguments for the impact of certain deviant behaviors on certain deviant outcomes may be derived from simple logic, opinions of domain experts, or the lack of rival theories. The exploration of possible determinants and consequences, then, should focus on those deviant behaviors for which the data suggest they will also impact deviant outcomes.

4.2.2. Exploring possible determinants of positive deviance.

Possible determinants of positive deviance can further be divided into behavioral differences or root causes of behavior. Generally speaking, root causes of deviant or other workplace behavior can be expected to include task and contextual

characteristics (co-worker relations, leadership characteristics, institutional regulations, etc.), which affect employee psychological states and processes (Cordery and Parker 2012; Vadera et al. 2013). These, in turn affect behavior. Personality variables are generally found to moderate these relations or to directly affect the psychological states and processes (Cordery and Parker 2012).

The approach to study any of these possible determinants is identical and consists of two stages. First, the units under study get divided into two groups: deviant and non-deviant. Group membership is again defined based on the observation of deviant outcomes, deviant behavior, or both. The different groups of possible determinants are compared between positive deviance and other units in the second stage. For each potential determinant, this comparison can return any of four alternatives defined by the between-group differences of within-group average and variance. Table 4 shows each of the four possibilities, using the example of team members' education as a possible determinant of—again—consistent top performance of a bakery department (positive deviance in outcome).

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4.2.3. Exploring possible consequences of positive deviance.

When positive deviance is defined in terms of outcomes (A), positive deviance is usually the consequence of interest in itself. Studies of this type of positive deviance are generally interested in identifying key determinants for the positively deviant outcome. When other consequences are of interest, the approach to studying those is the same as for determinants of positive deviance: identifying how positive deviant outcomes affect other factors in ways that non-deviant outcomes do not (see Table 4).

When positive deviance is defined as deviant behavior with a deviant outcome (C) the deviant outcome is also the consequence of interest, but the deviant behavior can have a whole range of other consequences that are also of interest when deviance is defined as behavior (B). Some existing research, for instance, suggests that positive deviant behavior influences subjective well-being, long-term effectiveness, the evolution of organizational and common business norms, and organizational performance (Spreitzer and Sonenshein 2003, 2004; Vadera et al. 2013).

4.2.4. Exploring rival hypotheses that may determine positive deviance or its consequences.

In order to draw conclusions about positive deviant behavior, positive deviant outcomes, and (other) effects of positive deviance, it is important to rule out rival hypotheses. Therefore, extraneous variables should also be included in the exploration. Positive deviant behavior or outcomes and their hypothesized determinants and consequences may be influenced by factors that are outside of the organizational or individual control. Kim et al. (2008), for example, found positive deviant nurses to be significantly more likely to be divorced, have fewer children, and be non-Muslim. These factors are not directly related to communication behavior (the focus of their study), but were controlled for in the analysis so that the effect of determinants of interest (e.g., motivation, use of communication aids, knowledge, and skills) could be measured accurately.

In the example of the increased prosperity due to letting trees grow amidst crops (Pascale et al. 2010), a local climate change rather than the trees may have explained the increased prosperity. If data about any climatological changes are gathered in the exploratory phase, this can be statistically controlled for in the testing phase. This increases the likelihood that the variance explained by positive deviant behavior is not confounded by extraneous variables and increases the validity of the conclusions. The exploration of possible confounding variables and rival theories can again be conducted by gathering information about a wide range of variables and assessing them according to the decision rule presented in Table 4.

4.3. Testing Positive Deviance and/or its Determinants and Consequences

Where the previous step (explore) served to gain a rich and deep understanding of positive deviance, the goal of this third step (test) is to confirm the findings from the previous qualitative step and to quantitatively assess the findings in a large sample to compensate for the smaller sample in the qualitative study (Venkatesh et al. 2013). This allows making meta-inferences that are based on a deep understanding inferred from the qualitative analysis performed as part of the previous step (explore), yet supported by the breadth and objective power of the following quantitative analysis. This third step presents three main challenges: operationalizing and measuring observations derived from the exploration of positive deviance, statistically evaluating the validity of positive deviance, and statistically confirming

the effects of observed determinants on positive deviance and positive deviance on consequences.

4.3.1. Measuring positive deviance, determinants, and consequences.

In order to quantify and test the qualitative findings, all retained factors have to be operationalized in such a way that hypothesized relations between the factors can be tested. Hypothesis testing usually favors quantitative research methods.

An important risk in a chosen quantitative research design to measure positive deviance, however, is that reports of positive deviant behaviors are likely susceptible to response bias. By definition, positive deviance implies a deviation from a norm. Even if respondents engaging in deviant behavior might be less sensitive to the guiding forces of norms, it is still highly likely that their responses will be influenced by the norms, leading them to respond in desirable rather than truthful ways. Therefore, other means of observing deviant behaviors and related constructs on a large scale could be sought, e.g., peer-, supervisor- or third-party ratings (e.g., customers), analysis of data/logs captured by systems used by respondents, or document analysis. These strategies will also decrease the likelihood of common source and common method bias (Podsakoff et al. 2003).

The measurement of positive deviance is challenging because positive deviance, by definition, is a context-specific behavior within a substantive domain that is defined by the norms of the reference group within that context. As norms will differ between groups and contexts, so will positive deviance. Therefore, the measures for positive deviance will likely refer to specific behavior. In order to increase the measurement validity, it is therefore advisable to construct and/or evaluate the measures together with domain experts and to run multiple pilot tests with extensive debriefs. Further, as we explain in the next section, it is advisable to include measures for existing constructs that show a strong resemblance to the observed positive deviant behaviors. Vignette 3 illustrates this approach.

The main disadvantage of a context-specific operationalization, however, is that it cannot *entirely* be falsified. Whereas the mechanisms that stimulate positive deviance and the outcomes of it can be measured in generalizable ways, the actual positive deviant behaviors are context-specific and will most likely not be observed in other contexts. As a result, they cannot be replicated. Therefore, to further increase the external validity of the study, another facet can be added to the operationalization

of positive deviance. On top of the context-specific operationalization, positive deviance can also be measured by means of the scale by Galperin (2012) that we discussed in section 2.2. Combining it with measures of performance, context-specific measures of positive deviance and other related variables can also extend the use of this scale and add to its validity.

Vignette 3: Measurement and validity of positive deviant behavior in bakery processes

In our study in bakery departments (see Vignette 1 and 2), we relied on a context-specific operationalization of positive deviant behavior. In the exploratory phase, we identified a whole range of deviant behaviors (with positive intent) that could explain the positive deviant outcomes produced by some departments. The deviance of these behaviors was established through extensive interviews during the case studies (i.e., by asking the reference group), by studying the rules and regulations captured in documents and systems, and through discussions with domain experts of the case organization. Next, all deviant behaviors were captured in a cross-sectional survey, where questions were very specific, probing for the frequency of certain deviant behaviors (e.g., "How often do you purposefully place bread on shelves that is still warm?"), whether they ever engaged in certain behaviors or not (e.g., introducing new products themselves), or which behavior of predefined alternatives most accurately reflected their own (e.g., "Our main approach when a product does not sell very well is […] producing less of the product; deleting this product from the range; etc."). All questions were checked for face validity by domain experts and pre-tested in one bakery trading department.

Once data were collected from the full sample and ridded of inconsistencies, all behaviors were linked to the various outcome measures though MANOVA analyses. Those deviant behaviors that affected the outcomes were retained as indicators of a formative construct 'positive deviance' (as dummies when nominal or binary). The validity and reliability of this construct was evaluated using established tests and thresholds for indicator weights, multicollinearity and uni-dimensionality, and through the evaluation of its discriminant and nomological validity in a model of determinants, consequences, and non-deviant but comparable behavior (e.g., customer-oriented behavior).

4.3.2. Assessing validity.

Assessing measurement and statistical conclusion validity is by no means different in studies of positive deviance from any other scientific studies. However, because of the emphasis of *deviance* in any chosen conceptualization of positive deviance and because of its context-specificity, two types of validity assessment demand particular attention: discriminant and nomological validity.

1. Positive deviance is related to a multitude of other constructs and, as we have discussed in the section on *existing definitions of positive deviance,* its difference with those—the departure from norms—is not always clear-cut (Spreitzer and Sonenshein 2004; Vadera et al. 2013). When studying positive deviant behavior that involves helping colleagues, for example, it should be evaluated whether it can be discriminated from non-deviant (i.e., "normal") helping behavior. And indeed, using the more general scale to measure positive deviance, Galperin (2012) found positive deviance to be empirically discriminant from, but correlated with, other non-deviant positive organizational behaviors.
2. Aside from differentiating positive deviant behaviors from other forms of regular behaviors with similar intent, structure, or outcomes, a second challenge exists in relating positive deviant behaviors to theoretically expected determinants and consequences in a wider nomological net. For instance, perusing the example of positively deviant helping behavior, its relation to, for example, procedural justice, perceptions could be evaluated to see if it is similar to the established link between procedural justice and non-deviant helping behavior (McAllister et al. 2007). Similarly, it was shown that people high in Workaholism, Machiavellianism, and Role Breadth Self-Efficacy were more likely to engage in positive deviant behavior (Galperin and Burke 2006; and Galperin 2012).

These two examples illustrate the particular relevance of discriminant and nomological validity testing in the study of positive deviance. Figure 3 assists the example to schematically present both forms of validity.

--- insert Figure 3 here ---

There are multiple ways for improving and testing discriminant and nomological validity (for a practical overview, see Straub et al. 2004), but we posit that in this phase the statistical tests are most relevant. As the testing phase of a positive deviance study consists of evaluating hypothesized relations in potential

determinants, positive deviance, and hypothesized consequences, it is recommended to first test the factor structure of the measured variables (Principal Component Analysis or Confirmatory Factor Analysis) and to confirm the hypothesized relations though Structural Equation Modeling (Fornell and Larcker 1981; Urbach and Ahlemann 2010).

5. Discussion

Contributions

In organizational domains, occurrences of positive deviance are often socially complex, contextual, and multi-level phenomena. The goal of studying positive deviance in organizations is to gain a deep understanding of these complex phenomena *and* to explain its determinants and consequences. In this paper, we proposed a framework that can help to achieve both these goals by combining the strengths of qualitative and quantitative methods in strict dependence on the chosen conceptualization.

The framework provides two central contributions, one conceptual and one methodological. The conceptual contribution of the framework is related to its integrative nature: it draws together not only past, current, and future studies but also conceptualizations of positive deviance in organizations. In so doing, it allows for cross-examination of results, it spurs synthesis of isolated research streams (e.g., those from sociology and those from organizational sciences), and it facilitates further meta-analyses and integrative reviews of studies and effect sizes.

The methodological advantages of this combination are related to concerns of resource intensity and, more importantly, research validity. For example, the purposive sampling explained in the first step (discover positive deviance) increases the chance that the phenomena of interest are observed while keeping the scope of the exploration step as small as possible (Cooper and Schindler 2006; Coyne 1997). The second step (explore positive deviance), in turn, provides a deep understanding of positive deviance, which creates a very precise idea of both what needs to be measured and tested subsequently (Lieber and Weisner 2010; Tashakkori et al. 2013) and of potential rival hypotheses that require falsification. Inductively linking these observations to existing concepts and making sure that these optimally cover the observations further increases the content validity of the measurement in the third step (test positive deviance). In this step, the identified concepts are operationalized using

existing and previously validated constructs and measurement scales, thus increasing the instrumentation validity, and the concepts are then further evaluated for their face validity and more general content validity with domain experts and/or a subset of participants from the organization under study. Gathered data are then subjected to a range of confirmatory tests to further testify to the construct validity (discriminant and nomological validity in particular) before they are tested together with a range of extraneous variables.

As the result of this stepwise approach, final inferences can be based on triangulated methods (qualitative and quantitative), triangulated sources (observations and interviews, self- and peer-rated structured survey data), and an assessment that rules out alternative hypotheses, leading to high overall internal validity (Podsakoff et al. 2003). Finally, the ecological validity evidently is high as well: the phenomena of interest are studied in their natural context and without introducing manipulations.

Implications

Aside from generating conceptual and methodological advice and making existing studies comparable, our framework suggests several important implications for the study of positive deviance in organizations. One implication of our framework is that it nudges future studies of positive deviance in organizations to adopt mixed method designs. The combination of qualitative and quantitative methods allows making meta-inferences that are based on a deep understanding inferred from the context-sensitive qualitative phase, yet supported by the breath and objective power of the quantitative phase (Tashakkori and Creswell 2008; Venkatesh et al. 2013). Congruent with others (Gable 1994; Mingers 2001; Tashakkori and Creswell 2008; Venkatesh et al. 2013), we note that such mixed methods research is not a substitute for rigorously conducted single method studies, yet it presents a complementary means of investigation that we find particularly suitable to examine positive deviance in organizations and that could alleviate some of the concerns raised by Hackman (2009).

The framework also facilitates the evaluation of the validity of positive deviance in relation to established constructs, and it draws attention to further research opportunities in the wider nomological net surrounding positive deviance. For example, previous work has predominantly studied negative forms of organizational deviance in comparison to Organizational Citizenship Behaviors (e.g.,

Bennett and Robinson 2000; Dalal 2005; Fox et al. 2012; Lee and Allen 2002). Recent work suggests that positive deviance may be a more appropriate operationalization of the positive end of the continuum of job performance (Galperin 2012). In turn, this finding adds to the need to empirically study positive deviance alongside organizational citizenship behaviors and other forms of non-standard positive work behavior, such as creativity and innovation (Spreitzer and Sonenshein 2004; Vadera et al. 2013).

Finally, the paper has important implications for practice. First, by providing a conceptual overview of positive deviance and its possible manifestations, it increases the understanding of positive deviance in organizations. Second, the proposed framework presents a method for finding positive deviance and for discovering why positive deviance has emerged. Organizations can apply this framework to find organizational improvements and innovations that have already been invented by organizational members, which has many advantages in terms of cost, complexity, and implementation of change based on these improvements (Tarantino 2005; Pascale and Sternin 2005; Seidman and McCauley 2008). Further, organizations can design programs to work on identified determinants to further stimulate the emergence of positive deviance.

6. Conclusion

The study of positive deviance in organizations is a challenging endeavor. In order to do it successfully, positive deviance has to be defined precisely. This starts by specifying whether it refers to behavior, outcomes, or both, as well as by specifying what makes up its positive and its deviant nature. Once the concept is crisply defined, it can be systematically traced, explored, and explained. The presented framework can provide guidance for both the design and execution of high quality studies on positive deviance. We hope that our work will further spur this exciting line of research and prove useful as a tool to review and consolidate the growing body of literature and to provide points of synthesis and integration with other fields of research interested in deviance phenomena.

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Figure captions

Figure 1. A framework for the study of positive deviance

Figure 2. Illustration of the identification of positive outliers based on three performance metrics. Dotted lines represent projections of two-dimensional arbitrary thresholds; e.g., the 95% confidence interval of the linear estimation. The grey circles mark positive deviant outliers based on two (Figure 3a) or three (Figure 3b) performance metrics. Figure 3b also shows the two-dimensional projections of the positive deviant outlier (grey lines and circles without dots).

Figure 3. Schematic illustration of discriminant and nomological validity based on selected findings of Galperin and Burke (2006) and Galperin (2012)

Tables

Table 1. Definitions of positive deviance according to the object of deviance

Behaviour	Outcome	
	Regular	Deviant
Regular	No deviance	A. Unexpected success or other *outcomes* that positively deviate from expectations or norms under equal external conditions
Deviant	B. Intentional *behavior* that deviates from the norms of a referent group, but is positive in terms of its intention and its conformity to hypernorms	C. Intentional *behavior* that deviates from the norms of a referent group, but is positive in terms of its intention and its conformity to hypernorms, *and* that causes unexpected success or other *outcomes* that positively deviate from expectations

Table 2. Comparing different conceptualizations of positive deviance using the example of bakery departments in retail stores

Suggested definition	Example	Determinants of interest	Consequences of interest	References that apply this definition
A. Unexpected success or other outcomes that positively deviate from expectations or norms under equal external conditions	A bakery department of a certain retail store consistently outperforming bakery departments in other retail stores	Any behavior or other factor that leads to the positive deviant outcome, e.g., the bakery's prime location in a busy city center	Positive deviance is an outcome in itself (outperforming other stores), but it can have other positive consequences as well, e.g., increased job satisfaction of the staff working in that bakery	Seidman and McCauley (2008), Lavine and Cameron (2012)
B. Intentional behavior that deviates from the norms of a referent group, but is positive in terms of its intention and its conformity to hypernorms	Making and decorating personalized cakes for special occasions of customers, even when this is not expected and other bakers do not do this	Any individual, group or contextual factor that triggers positive deviant behavior, e.g., intrinsic motivation and skill of bakery staff	Any positive effect on the individual that engages in positive deviant behavior, on peers, the group/community or on society as a whole , e.g., satisfied customers	Warren (2003); Spreitzer and Sonenshein (2004); Galperin (2012)

Suggested definition	Example	Determinants of interest	Consequences of interest	References that apply this definition
C. Intentional behavior that deviates from the norms of a referent group, but is positive in terms of its intention and its conformity to hypernorms, and that causes unexpected success or other outcomes positively deviating from expectations	Strategically reducing the price of bakery products about to expire in order to sell them rather than dispose of them, and, as a result, dramatically reducing the waste of the department	Any individual, group or contextual factor that triggers those deviant behaviors that lead to deviant outcomes, e.g., the education of the bakery manager	Deviant outcomes by definition and any other positive consequence for the individual, peers, the group/community or society, e.g., waste reductions in other bakery departments	Cohn (2009); examples provided in Pascale and Sternin (2005), Pascale et al. (2010), Seidman and McCauley (2008)

Table 3. Selected positive deviance studies and their respective definition and method

Reference	Definition and approach	Method	Empirical sample	Key contributions and findings
Crom and Bertels (1999)	Deviant outcome (A); normative approach	Conceptual paper	Not available	Develops the Change Leadership concept and an approach to finding positive deviants and lets them inspire and lead change where change is required
Warren (2003)	Deviant behavior (B); normative approach	Conceptual paper	Not available	Develops an integrative typology of deviance that includes positive and negative behaviors
Spreitzer and Sonenshein (2003)	Deviant behavior (B); normative approach	Conceptual paper with examples (qualitative)	Anecdotal illustrations, e.g., from healthcare, malnutrition in Vietnamese pharmaceutics	Develops a model of antecedents to positive deviant behaviors and integrates counter normative behaviors at work with positive organizational scholarship
Spreitzer and Sonenshein (2004)	Deviant behavior (B); normative approach	Conceptual paper with examples (qualitative)	Textile and pharmaceutical company	Provides an overview of different approaches to studying positive deviance, provides a new definition of positive deviance, differentiates positive deviance from related concepts, and

Reference	Definition and approach	Method	Empirical sample	Key contributions and findings
				initiates the operationalization of positive deviance
Pascale and Sternin (2005)	Deviant outcome (A), but uses examples to refer to both (C); normative approach	Conceptual paper with examples (qualitative)	Anecdotal illustrations from malnutrition in Mali, manufacturing, sport management, human trafficking, and biopharmaceuticals	Defines a method for change management based on the identification and engagement of positive deviants
Appelbaum (2007)	Deviant behavior (B); normative approach	Literature review	Not available	Develops a model of conditions underlying workplace deviance
Seidmann and McCauley (2008)	Deviant outcome (A), but uses examples to refer to both (C); statistical approach	Conceptual paper	Anecdotal illustrations from aerospace and insurance	Develops an approach to identify positive deviants in an organization and explores the drivers and the nature of positive deviance based on examples

Reference	Definition and approach	Method	Empirical sample	Key contributions and findings
Kim et al. (2008)	Deviant outcome (A); statistical and normative approach	Cross-sectional study with interviews and focus groups (mixed method)	Nurses in hospitals	Identification of factors in clinics and communities that enable nurses and patients to communicate more effectively
Cohn (2009)	Both (C); normative approach	Conceptual paper with examples (qualitative)	Anecdotal illustrations about physicians in hospitals	Development of strategies to improve changing behavior of physicians, amongst others, by relying on positive deviance
Kerns (2011)	Deviant Outcome (A); normative approach	Conceptual paper with case study (qualitative)	Marketing and sales in a multinational corporation	Conceptualization of a positivity profile, a management method, and a coaching approach
Leavy (2011)	Deviant Outcome (A), but implicitly refers to both (C); normative approach	Literature review	Review of two published cases	Review of contributions of positive deviance and application of the positive deviance approach to bring about adaptive change

Reference	Definition and approach	Method	Empirical sample	Key contributions and findings
Galperin (2012)	Deviant Behavior (B); normative approach	Development, validation, and cross-sectional application of survey instrument (mixed method)	Large samples of employees with various industry backgrounds; different samples for development, validation, and application	Develops a 13-item scale measuring interpersonal and organizational positive deviance and explores the nomological network of positive deviance. Positive deviance was related to Machiavellism and Role-Breath Self-Efficacy
Lavine and Cameron (2012)	Deviant Outcome (A); normative approach	Conceptual paper based on case study (qualitative)	Nuclear weapons manufacturing, and decommission	Conceptualization of a typology for extraordinary performance of positive deviant organizations
Walls and Hoffmann (2013)	Deviant behavior (B); statistical approach	Cross-sectional survey of panel data	Companies in the SandP 500 Index (primary and manufacturing industries)	Identification of correlations between positive deviance, past environmental experience of board directors, and centrality of the organization within field-level networks
Vadera, Pratt and Mishra (2013)	Deviant behavior (B); normative approach	Conceptual paper based on literature review	Not available	Reviews the literature on positive deviance and related positive organizational behavior and

Reference	Definition and approach	Method	Empirical sample	Key contributions and findings
				proposes a model of antecedents of positive deviance

Table 4. Decision rule for separating potential determinants from other factors using an example of positive deviance in outcomes (definition C)

Within-group average	Within-group variance	
	Positive deviant = other	Positive deviant ≠ other
Positive deviant = other	No likely determinant *E.g., if the average and variance in team members' education level in positive deviant bakeries is not significantly different from other bakeries, their education level is likely not a determinant of their consistently better performance*	Possible determinant *E.g., if the average education level is the same in positive deviant and other bakeries, but non-positive deviant bakeries have a higher spread in education (i.e., some highly and some lowly educated staff), this may explain part of the performance differences*
Positive deviant ≠ other	Possible determinant *E.g., if positive deviant bakeries have an equal variance in the education of the staff, but on average more highly educated team members, this may explain part of their consistently better performance*	Possible determinant *E.g., in teams where the average education is high, the variance in education may not play an important role; when the average is low, a larger variance may be a predictor of positive deviance*