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What's the narrative for practice? A review of recommendations on feedback and a guide to writing impactful practical implications

Abstract

Research on supervisory feedback has burgeoned over the past twenty years. We ask, what does it have to offer to management practitioners, and is this knowledge conveyed in a constructive way? To answer these questions, we conducted a systematic literature review of the *practical implications* contained in feedback studies. Based on our retained articles (N=120) and using the W-H questions as our guiding framework, we critically discuss: *Why* recommendations are offered, *What* recommendations are endorsed, *When* and *Where* the recommendations are presented as most applicable, to *Whom* those are addressed, and *How* they are framed by researchers. In so doing, we summarize the indications that scientific research has offered to practitioners; moreover, following the same framework and the insights collected via a follow-up survey of academics (N=61), we provide recommendations to researchers across the management and psychology disciplines on how to craft their practical implications sections in a way that may help bridge the gap between research and practice.

Keywords: Feedback, systematic review, practical implications, evidence-based management

Introduction

There is arguably no other subject area in HRM research that has been as much debated in recent years as performance management (Cappelli & Tavis, 2016). Over the last decade, dissatisfaction with performance management practices has increased to the point that many companies have either declared in favor of abolishing these systems (Buckingham & Goodall, 2015), or are considering changing them radically (Adler et al., 2016). For the vast part, while such drastic measures have largely concerned the appraisal component (e.g., going “ratingless”), the feedback element has risen to the forefront of attention (Ledford et al., 2016). Scholars have, likewise, taken a strong stance against the effectiveness of performance evaluations (Murphy, 2020), and pointed toward the need for more (frequent) feedback (Pulakos et al., 2019).

Yet, supervisory feedback may pose different challenges that should be carefully considered. Kluger and DeNisi (1996) showed that feedback can backfire and bring about a decrease, rather than an increase in individual performance. Moreover, feedback may have negative effects on employees’ attitudes, morale and wellbeing (e.g., Sparr & Sonnentag, 2008). For these reasons, what is needed is an evidence-based approach (Rousseau, 2006), through which academics can equip managers with a more competent understanding of effective feedback. However, the research-practice gap in the performance management domain is still large (Vosburgh, 2017). While this is due to multiple reasons (Schulz & Nicolai, 2015), it is the primary responsibility of academics to start addressing it – by highlighting how their findings may influence practice. Given the heightened attention to feedback, we believe it is paramount to explore how researchers can better communicate their findings and translate them for practical application. Therefore, in this study we aim to answer the following questions: *What do researchers convey to practitioners regarding supervisory feedback? And how can researchers convey their message in an effective way?*

To answer these questions, we systematically reviewed the practical implication (PI) sections contained in scientific articles on supervisory feedback. We employed the systematic review method because this is the one most agreed-upon to assess the literature, take stock of it, update the current knowledge, and move the field forward (Knopf, 2006; Rojon et al., 2021). We explicitly focused on PI sections due to our interest in how research is communicated for use in managerial practice. PI sections are the paragraphs where researchers try to translate their scientific results into practical suggestions that can facilitate problem solving and guide people management practices in organizations (Shapiro et al., 2007). Thus, PIs represent the ideal portions for analysis to extract relevant content to answer our research questions. However, for PIs to be valuable, some authors argue that they would need to be derived from an accumulated set of research evidence rather than single studies (Rousseau et al., 2008; Simsek et al., 2018) . This would be necessary in order to overcome any shortcomings of single studies concerning, for example, sample size and sampling procedure, and would require exact or at least partial replication; Eden, 2002) .

All in all, we believe our work makes two important contributions to the feedback literature, the HRM discipline, and the fields of management and psychology more generally. First, by critically analyzing the implications emerging from extant studies on supervisory feedback, we contribute to reducing the research-practice gap on feedback and we map out which evidence-based insights we may offer and to whom, considering that various stakeholders are likely concerned with improving the quality of feedback that is delivered at work. Second, we address the larger communities of researchers in HRM, management, and psychology by offering advice on how to craft the PI sections in articles in order to increase the usability of scientific research in practice (Rousseau & Barends, 2011). To this purpose, we present a framework based on the W-H questions, and an application of this, which can guide academics through the identification and writing of PIs in their studies.

The state of the art on feedback practices

Feedback is one of the “hottest” topics in the HRM and organizational psychology literatures. A quick search in the Harvard Business Review (HBR) - generally considered the “best” management magazine (i.e., practitioner-oriented and academically driven) - reveals that the first article on the topic appeared in 1995. This article emphasized that performance management programs should include feedback and coaching alongside a metrical focus (Rheem, 1995). Ever since, publications centered around feedback have grown steadily, with 10 articles appearing in the magazine in the 2000s, and six published in the 2010s. However, what really skyrocketed in 2010s was the number of articles published in the HBR digital articles (i.e., the web counterpart to the magazine aimed at offering contents close to the contemporary issues managers face). With as many as 60 articles appearing in HBR.org in the 2010s, feedback seemed to have become a buzz word.

The articles issued in the first decade covered topics such as 360° evaluations (e.g., Peiperl, 2001); the importance of giving/receiving positive feedback, and not only negative feedback (e.g., Kaplan, 2002); how to give negative feedback to avoid triggering negative feelings (e.g., Manzoni, 2002)); how to better react to feedback and extract value from poorly delivered feedback (Bartolomé & Weeks, 2007); and the importance of receiving accurate feedback from any source, regardless of whether it is positive or negative (Moyer, 2005).

In the second decade, the magazine articles exclusively focused on the possible consequences of feedback (notably negative ones, such as performance and learning impairment, and causing defensive reactions; e.g., Berinato, 2018; Buckingham & Goodall, 2019) , as well as on how to give and receive better feedback (e.g., Heen & Stone, 2014). The online articles were especially concerned with offering “tips” and “how to” guides to improve managers’ and employees’ ability to give and receive/react to feedback (58% of the 60 retrieved articles addressed these issues; e.g., Carmichael, 2009, 2014; Valcour, 2015). New

topics that emerged in this period dealt with how to ask and get feedback (Riegel, 2018), and how to build a feedback-oriented organizational culture (Whitehurst, 2015).

Given the proliferation of such advice regarding feedback, one may wish to scrutinize to what extent academic research has informed it and, therefore, assess how much impact science may have on practice. Indeed, in the broad psychology and management areas, including in HRM, there is considerable skepticism regarding the contribution to practice that is offered by academic research – and actually used by professionals – (Bartunek & Rynes, 2010). In the feedback domain, the research-practice divide has been a long-debated issue (Aguinis & Pierce, 2008), with researchers maintaining that there is still a long road to travel to bridge research and practice (Levy et al., 2017) despite a recent survey suggesting the gap may be slowly closing (Gorman et al., 2017).

Discussing the science-practice gap, Rynes and colleagues (2001) framed the issue as being one of knowledge creation vs. knowledge transfer. Years later, Shapiro and colleagues (2007) empirically found that academics clearly distinguish the two sides of the problem, and urged that efforts should be made not only with regard to transferring academic knowledge, but also earlier on in the research process when investigating topics that are close to the needs of practicing managers. One could argue, however, that the two aspects of knowledge creation and transfer are not completely unrelated and, on the contrary, are intertwined. Researchers' (in)ability to identify and spell out which features in their studies are relevant for managers and which should, therefore, be communicated is not only a reason for its (limited) impact on practice, but it also affects the researchers' ability to ask relevant research questions (Pearce & Huang, 2012; Shapiro et al., 2007).

PIs as narratives

We concur with other authors who believe that the divide between science and practice cannot be bridged with unidirectional communications (Schulz & Nicolai, 2015);

nonetheless, researchers are still the ones responsible for (starting) translating valuable knowledge into practical insights. One of the first recommendations made to achieve this was the requirement that there be a PI section in all scholarly articles (Cohen, 2007). How impactful and even useful these sections are, is still a matter of debate.

In their innovative review, Bartunek and Rynes (2010) found that only half of the articles included a section dedicated to PIs and that they often lacked the level of detail, or actionability, that practitioners may need. Since their publication, the state of affairs in management research with respect to PIs seems not to have changed much. Recent research (Kougiannou & Ridgway, 2021) shows that among the HRM empirical papers published in 2018, very few provided PIs, and in most cases such implications were implicit and not set out in a useful way. Similarly, a panel discussion held at a recent Academy of Management meeting (Meuser, 2020), convened several scholars to discuss researchers' limited attention to the implications (or applications) of their studies, and the difficulties they face in identifying them.

As some authors have begun to note (Kougiannou & Ridgway, 2021; Simsek et al., 2021), the problem seems to lie with what authors see as being practically relevant stemming from their studies, and how they express this. We frame this problem as an issue of narrative because we regard PIs as narratives, namely stories that help make and give sense to the world and persuade an audience (Deighton et al., 1989; Green & Brock, 2000). Due to their rhetorical nature, we maintain that PIs can be analyzed by referring to the W-H question framework.

The five W (i.e., Why, What, Who, When and Where) and the one H (i.e., How) questions, which represent the foundation of the Anglo-Saxon journalistic style (Nordquist, 2020), ensure that a discourse covers the most important elements of a story. Typically, narratives pursue two functions: explicating a problem that narrators try to persuade the audience to act upon; and orienting the audience into the details (Labov & Waletzky, 1967).

To accomplish the first function, narrators start with the “why” question. In our case why practitioners should enact the PIs and what they will achieve by doing so. The second question concerns the content of PIs (i.e., the “what”), which may vary considerably not only in relation to the specific topic addressed, but also in the extent of details that are provided. This speaks to the perceived usefulness (Mohrman et al., 2001) and actual utilization of research (Beyer, 1997). Following Beyer (1997), research that offers enough details to help managers visualize possible implementations, likely feeds an instrumental practical use that can lead to a direct application. Other studies may offer a conceptual use; that is, research can be used to enlighten and reflect. Next, PI narratives may take into consideration the contextual circumstances that influence the effects of organizational interventions (Nielsen & Randall, 2013). Researchers may, thus, draw the boundary conditions (i.e., the “when and where”) of their PIs, identifying the specific contexts and groups of individuals the PIs are meant for. The fourth W question in our proposed framework is the “who”: the people to whom the PIs are addressed or, in other words, the audience of the PIs. Since it is crucial to construct the message in a way that addresses this audience’s demands, identifying the right audience is key (Van Eemeren, 2010). The final question guiding good rhetoric is the “how question” which, in our PI context, means exploring the narrative construction of the PIs offered in academic journals and highlighting the rhetorical devices used by researchers in their attempt to convince readers of their ideas and suggestions.

Examining the five basic rhetorical elements in PIs enables us to highlight what researchers have so far conveyed to practitioners about feedback, on the one hand, and how, on the other hand, their narrative can be strengthened.

Methodology

Literature search

We searched PsycINFO and PsycARTICLES databases since they are discipline-specific and provide targeted coverage of results related to the concept of feedback in management and organizational psychology – as opposed to feedback loops in computer science or systems theory and similar examples (Harari et al., 2020). Pragmatically, these databases also allowed us to select relevant fields via the use of *classification codes* to perform a narrower and more relevant search (the full list is provided as supplementary material). We used the Boolean combination of key terms *feedback* (in the *subject term*) *AND work OR organi* OR employ** (in the *abstract*). Moreover, with the focus on feedback in the organizational context, we set the limiter age group to be 18 years and older. As Kluger and DeNisi's seminal meta-analysis, which revealed the paramount importance of the quality of feedback as well as its valence, was published in 1996, we selected the search time-frame to be from 1996 to 2019 (inclusive).

This search resulted in 767 records. Additionally, as recommended in the literature (Harari et al., 2020), we conducted a manual search of the abstracts of publications in influential journals, searching the following fields: Psychology Applied, HRM and Employment Studies, Organization Studies, and General Management using the above-mentioned Boolean combination of key terms. This resulted in nine additional articles. Studies were retained if they fulfilled the following inclusion/exclusion criteria: peer-reviewed articles; empirical studies (as we were interested in PIs); working population sample (student samples and simulations were excluded); focus on feedback as a focal variable to be measured at an individual level (group feedback and pure performance ratings were excluded); and feedback from a supervisor (upward feedback and multi-source feedback were excluded, unless the supervisory feedback could be disentangled from other sources).

The sifting process is presented in Figure 1 and led to the retention of 120 articles as our final sample for analysis.

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Coding procedure

Given our interest in PIs, we extracted statements from sections dedicated to practical/managerial implications in the journal articles or, if such dedicated sections did not exist, we examined the whole discussion sections to locate the explicit PI statements (Bartunek & Rynes, 2010). Consistent with calls for greater clarity and transparency in the synthesis phase of systematic reviews (Rojon et al., 2021), we availed ourselves of atlas.ti (Hwang, 2008) to screen the aforementioned sections. Employing the W-H question framework, we extracted statements that addressed the what question and one or more of the remaining guiding W-H questions. This resulted in 322 PI statements from 100 articles (twenty articles from our original sample of 120 articles did not report any explicit PI statements). The number of PI statements from each of the articles is provided in the supplementary material. The extracted PI statements were coded by identifying the recommendations (the what), the purpose or the outcomes the recommendations aim to achieve (the why), the conditions under which they can be applied (the when and where), their audience (the who), and the rhetoric modalities used in framing them (the how). This approach is consistent with narrative analysis where both the content and the structure of narratives are analyzed (Riessman, 1993).

The “Why”

For this question, we focused on whether the outcomes of feedback were mentioned in the extracted PIs. When mentioned, following Miles and colleagues' (2014) first cycle coding, we assigned *descriptive codes* to these outcomes. To further classify these descriptive codes of outcomes into second order constructs, we proceeded with *a priori* categories and

used constructs which already existed in the literature (Robbins & Judge, 2015). We built on the basic psychological distinction among the related yet discernible constructs of *affects*, *cognitions*, *attitudes/motivations*, and *behaviors* to understand the diversified impact of feedback on individuals. We envisioned another category of *organizational outcomes* to capture any more distal and higher-level effects and, finally, we created new categories for those outcomes that we could not fit in well-defined constructs. Two of the authors categorized the coded outcomes, achieving an acceptable inter-coder agreement (Kappa = 0.78).

The “What”

To answer the “what” question, we focused on the actions recommended in the PIs. This implied that each PI could report multiple actions. Indeed, we identified 574 actions within our 322 PIs. In the first cycle coding, we used *process codes* that are appropriate for observable and conceptual actions (Miles et al., 2014). Then, we proceeded with the second cycle coding according to the three categories we derived from Beyer (1997) and based on the PIs’ level of accuracy and practical details. We defined them as follows in our codebook:

1) *Informational* PIs raise practitioners’ awareness and lead to a new understanding of feedback-related phenomena and concepts; in this category, we coded actions that highlight the acquisition of (new) knowledge and help practitioners understand phenomena; 2) *Aspirational* PIs offer practitioners ideas on the direction to take without operationalizing those suggestions in practical steps; in this category, we coded actions that provided practitioners with indications on desirable initiatives to implement without going into detail; 3) *Actionable* PIs provide practitioners with truly actionable recommendations they can implement; in this category, we coded actions constructed with a clear and explicit level of detail which render them sort of instructions or specific guidelines.

Using the codebook, all three authors independently categorized a random sample of 80 coded recommendations (almost 15% of the overall sample) into the three categories (Kappa = 0.73). Subsequently, the first and second authors categorized a set of 283 coded actions (Kappa = 0.87), while the second and third author categorized the remaining 211 coded actions (Kappa = 0.92). At each stage, disagreements were resolved through discussion.

The “When and Where”

To code the conditions mentioned in the extracted PIs, we used *descriptive codes* for first cycle coding (Miles et al., 2014), and for the second cycle we used *a priori* topics for categorization – specifically, because contextual variables have been identified at multiple levels of analysis (Miraglia & Johns, 2021), we anticipated the *individual, interpersonal, organizational, occupational, and national* levels. Two of the authors did the categorization (Kappa = 0.75).

The “Who”

To answer the who question, we used *in vivo* codes of the exact audience mentioned in each PI, or even in each action if different ones were mentioned. For categorization, since there is no predefined target audience in the literature and authors refer to any target audience freely, we grouped those codes into fewer emergent categories based on the similarity of these audiences. The inter-coder agreement was high (Kappa = 0.98).

The “How”

To answer the question “How”, we relied on the concept of *modality* (Nordquist, 2018), which is known in functional linguistics as the speaker’s attitude and judgment about the content communicated to others. More specifically, we coded the PIs in terms of the *deontic modalities* used by authors, which indicate the person’s directive attitude –of varying degrees– toward the proposition that he/she is offering. This attitude varies along a continuum of obligation, from high to low (Biber et al., 1999). PIs can therefore express a

necessity, a possibility, or an intention (prediction). PIs convey a necessity or an “obligation”, when researchers clearly express their preference for a given indication such as when they recommend or advise it as necessary according to some normative background (i.e., “deontic”), or their empirical findings. PIs can express a possibility or “permission”, when the authors leave greater agency to the reader who can choose from among the different alternatives provided. Finally, PIs can express intention/prediction, when the authors simply describe what will result from the proposed direction. No personal preference is expressed here, and no options are offered, but the readers will autonomously decide upon the actions proposed.

We used *in vivo* codes to identify the deontic modal expressions used by authors. Modal expressions include modal verbs (i.e., can, could, should, would, may, might) as well as adjectives and adverbs that also express varying degrees of “obligation” (e.g., necessary, important, possible). For the second cycle coding, we categorized those expressions according to the aforementioned taxonomy of deontic modalities (Biber et al., 1999).

Findings

The descriptive results, presented in Table 1, show that only 57.5% of articles had some sort of section for PIs. The percentage is much greater when we look at articles published in the last decade (69%) versus the previous decade (40.5%), and they mostly did so in dedicated sections.

----- Insert Table 1 around here -----

In addition, it emerges that most articles ranked 4 stars in the AJG 2018, more frequently presented dedicated sections to PIs than other lower ranked articles did. Comparing the AJG disciplines, papers published in *Human Resource Management and Employment Studies*, are more likely to have dedicated PI sections (64.3%) than the other disciplines. More detailed results are presented in Table 2.

----- Insert Table 2 around here -----

Why the PIs are provided

PIs on supervisory feedback are typically provided along with explicit mention of the positive consequences associated with them (48% of the PIs mentioned the associated benefits). Based on our classification, the groups of purposes represented in the data, and their relative weight, are reported in Figure 2 (due to limited space, there is only a sample of purposes provided in this figure; the full list is available upon request). The first group of PIs emphasizes that acting on feedback (and/or its antecedents) would impact employees' *affects*, for example by reducing anxiety and nervousness (Krasman, 2013), defensiveness (David, 2013) and other negative emotions (Guo et al., 2017) generally associated with the evaluations or the feedback itself. To a lesser degree, this category also presents PIs on feedback as a way to increase positive affects (Gong & Zhang, 2017) and make employees feel respected and valued (Hutchison & Garstka, 1996).

The second group involves PIs that illustrate how feedback influences employee *cognition*. This involves various forms of perception ranging from fairness (Chun et al., 2018), or accuracy (Kinicki et al., 2004) to the perceived value of successful performance (Tata, 2002). Other PIs related feedback to acquiring knowledge on job skills (Preston, 2015), gaining role clarity (Whitaker et al., 2007), and increasing learning (Zheng et al., 2015).

The third group includes PIs that refer to how using feedback may induce positive *motivation/attitudes* in employees. Here, the most frequent attitudes are commitment to/identification with the organization (Young & Steelman, 2014), and satisfaction with the job, the supervisor and the feedback itself (Besen et al., 2013; Jawahar, 2006; Joo & Park, 2010; Luffarelli et al., 2016). In terms of motivation, several PIs draw attention to the fact that employees' motivation to work or to act on feedback may be strengthened (Peng & Lin, 2016; Tata, 2002). Notably, there are very few occurrences of negative

motivational/attitudinal factors that may be reduced with feedback, and these include turnover intentions (Krasman, 2013), and job strain (Preston, 2015).

The fourth and largest group of PIs targets boosting positive *behaviors* in the workplace, such as employee performance (Peng & Lin, 2016), feedback seeking behavior (Peng & Chiu, 2010), innovative behavior (Eva et al., 2019), extra-role behavior (Sommer & Kulkarni, 2012), and proactive behavior (Maden-Eyiusta, 2016). By the same logic, although to a much lesser extent, some PIs target the prevention of negative behaviors such as counterproductive behavior (Guo et al., 2017), workplace deviance (Peng & Lin, 2016), absenteeism (Gaudine & Saks, 2001), and turnover (Belschak & Den Hartog, 2009). This category also included PIs that emphasize how feedback may improve supervisors' leadership behaviors, including coaching employees (Steelman et al., 2004), and accurately collecting performance data (Cook & Dixon, 2006).

The fifth group of PIs extends from individual level to *organizational level* outcomes. These include organizational improvement (van Rensburg & Prideaux, 2006) and performance (Peng & Lin, 2016), but in fact most of them report feedback as a tool to improve HR practices (e.g., 360-degree evaluation, coaching, training; Bailey & Austin, 2006), and internal culture and climate (Peng & Lin, 2016; Rosen et al., 2006).

Finally, in addition to our *a priori* categories, a sixth category emerged from the data, which grouped together those PIs alluding to broad (e.g., "employee reactions", "success"; Bailey & Austin, 2006; Steelman et al., 2004) or ambiguous concepts (e.g., "benefits"; Young et al., 2017). With such expressions, authors either conflate multiple individual level constructs (e.g., reactions may be affective and cognitive; learning may be both behavioral and cognitive), or do not specify well enough the effects of the practical actions addressing feedback. Hence, we named this additional category "mixed".

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What is recommended in PIs

Based on our analysis, most of the actions contained in the PIs come under the actionable category, offering specific and detailed recommendations that can be directly and immediately applied in practice. We observe, nonetheless, that they exceed just half of the total (54%). These PIs are followed in number by those in the aspirational category (30%), which offer ideas on actions that practitioners could implement without explicit instructions or details regarding their implementation. Finally, the informational category contains the smallest number of actions (16%), signaling that academics point toward cognitive learning and provide insights and information to practitioners to a much lesser extent. Illustrative quotes for each of these three types of PIs are provided in Table 3.

Scanning through the main content of the recommended actions, we find that training managers and developing their skills to give feedback are among the more frequently mentioned actionable indications (e.g., Tata, 2002; Whitaker & Levy, 2012). The focus is on what content should be addressed as part of the training programs, including, in particular, the features of good quality feedback: task-focused (Hon et al., 2013), problem-focused (Sommer & Kulkarni, 2012), prescriptive (Ilies et al., 2013), developmental (Joo et al., 2015; Linderbaum & Levy, 2010), informative (Whitaker & Levy, 2012), and specific (Moon, 2019; Nae et al., 2015).

Along similar lines, but lacking practical suggestions, are those aspirational actions that point organizations toward encouraging or promoting better feedback practices. Often, these suggested implications seem to lack actionability due to an ambiguous definition of the features that make for good-quality feedback like, for instance, broadly referring to “high-quality”, “effective” or “useful” feedback (e.g., (Jiang & Gu, 2015; Son & Kim, 2016; van der Rijt et al., 2012).

In the informational category, many of the reviewed actions invite managers to “anticipate”, “consider” or “take into account” various elements (e.g., employees’ characteristics, the setting, possible consequences) when crafting or while communicating their feedback message (Guo et al., 2017). All these expressions convey cognitive knowledge of the possible consequences of feedback processes.

----- Insert Table 3 around here -----

When and where the PIs can be applied

Very few PIs specify the conditions in which certain recommendations are best implemented (summarized in Figure 3). Using the multiple contextual levels as our guiding classification (Miraglia & Johns, 2021), we found that 66% of these conditions were related to the *individual level*, which covers the characteristics of the feedback recipients. These span demographic characteristics such as age (Besen et al., 2013; Wang et al., 2015), and work experience (Dahling et al., 2012); and individual traits and states, including the Big Five (Guo et al., 2017) : fixed vs. growth mindset (Zingoni, 2017), self-confidence (Bailey & Austin, 2006), self-efficacy (Bailey & Austin, 2006), performance approach orientation (Molleman, 2019), learning goal orientation (Son & Kim, 2016), and feedback orientation (Gabriel et al., 2014).

Very few PIs (7.5%) fell into the *interpersonal level* and those that did were linked to the relationship between employee and management (McKnight et al., 2001), especially with regard to their closeness and quality of interaction. The *organizational level* is the second most frequent category of conditions (22.7%), and we include here characteristics of the job such as being highly dynamic (Fedor et al., 2001); resources available within the organization, namely supportive coworker feedback environment (Young & Steelman, 2014) and adequate resources to offer development, training and incentives to employees (Eva et al., 2019); specific organizational practices, such as just-in-time and quality management

practices (McKnight et al., 2001). We also included in this category, particular situations related to performance appraisal and feedback, such as the level of performance appraisal ratings within the organization (Luffarelli et al., 2016).

For the *occupational level*, we note that none of the PIs fit the category. This means that none of the PIs that scholars offer practitioners is specifically tied to business industry or sector. Finally, regarding the *national level*, culture is the factor to consider, yet it is mentioned in only 3.8% of the PIs. One example is high power distance (Eva et al., 2019), which is a condition that requires supervisors to intervene and promote feedback exchange among colleagues.

----- Insert Figure 3 around here -----

To whom the PIs are addressed

When it comes to answering the “who” question, the focus is on the audience to whom the recommendations were directed. Surprisingly, no specific audience was addressed in a large portion of PIs (34.6%). The most frequently mentioned audiences were *managers* (35.1%), *organizations* (19.4%) in general, *HR practitioners* (6.3%), and *employees* (3.7%). The details are provided in Figure 4.

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How the PIs are framed

Finally, we explored the rhetorical construction of PIs, and how scholars communicate these to practitioners. The results, together with illustrative quotes, are presented in Figure 5. The first group is *obligation/necessity/advice*, in which scholars’ PIs explicitly point practitioners toward their preferred action; this is the most numerous group (49%) and is normally structured using the following modals: *should*, *need to*, *must*, and *have to*. Other formulations frequently used are: “it is critical”, “it is essential”, “it is necessary”, “it is a [...] responsibility”.

Within the second category of deontic modalities, namely *possibility/permission*, we grouped those expressions that convey suggestions while leaving more room for practitioners' agency in deciding the best initiatives to undertake. This is frequently achieved by the use of such modals as *can*, *may*, *could*, and *might* in PIs (36%). Other expressions explicitly alluded to multiple possibilities, such as "one of the most effective ways", "alternative ways", "a possible way".

In the last group of modalities, namely *intention/prediction*, we include those PIs that illustrate what may follow from undertaking the stated action (9%). In the PIs we reviewed, this is obtained by means of the modal verbs *would* and *will*, and expressions such as "be able to", "enhance the likelihood".

Finally, we should note that a small percentage (6%) of PIs did not contain any deontic modality in their formulation and we classified these in a "neutral" category. Examples include "the primary practical contribution is supporting ...", "Of interest to managers, it seems that ...", "These findings call attention to the fact that ...".

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A follow-up survey on academics' perspective

We conducted a follow-up survey to ascertain academics' perspectives on the utility of PIs and how they approach these in their writing. The survey results complement the findings about the use of PIs stemming from the literature review and extends the conclusions of the review to researchers beyond the specific topic of feedback.

Using convenience sampling, we reached out to colleagues from our current or previous institutions, co-authors and other fellow researchers we personally knew, who are active in the OB, HRM, organizational psychology, organization studies, and management fields. We sent invitations to 349 scholars asking them to complete an online survey (comprising both closed- and open-ended questions) via google-forms, and collected 61 responses over the

course of one month (response rate was 17.5%). We had respondents from 19 different countries (mostly European countries, the UK, Canada, the US, India and Japan). Of the respondents, 60.7% percent were women and 1.6% preferred not to say. All academic ranks were represented, with 17 respondents being full professors, 24 associate professors, 16 assistant professors, and 4 post-doctoral researchers. The average number of years since PhD completion was 12.32 (SD = 8.47, range = 0-43).

On average, respondents reported to have included a PI section in most of their publications (81% of their published articles, SD = 25, range = 0-100) and they deem such a section moderately useful for both practitioners (mean = 4.6, SD = 1.5, range = 1-7) and researchers (mean = 4.7, SD = 1.7, range = 1-7). However, great variation exists in such results, which we further explored through content-analysis of the responses to the open-ended questions.

Regarding specific reasons for the usefulness of PIs, scholars reported that, for practitioners, PIs can provide opportunities for reflection and learning (25%) and recommendations based on evidence (25%). For researchers, writing a PI section can facilitate reflection upon the social and societal impact and practicality of a study (16%), and a focus on how and why research findings matter for practitioners (14%). From the researcher perspective, PIs are also worthwhile for the readers, and not just the authors, as they help to shape future research directions and areas of inquiry (22%) and offer insights for research-led teaching (10%). These findings are complemented by the analysis of why researchers write PI sections in their own articles. Three key themes emerge: a) a normative one (33%), capturing the norm of including PIs as required by journals or as “a standard procedure” in the field; b) a theme named “purpose of research” (22%), indicating that researchers write PIs because they believe research is applied and should impact practice and promote evidence-based management. This recalls the above-mentioned reason for the usefulness of PIs with regard to

facilitating reflection on the social and societal impact of research; c) a theme related to the translation of research findings into practice (15%), which is enabled by formulating PIs for a given study, in line with the reasons reported by academics on how writing PIs can emphasize a practice-research connection.

When considering the reasons provided by participants to justify the perceived “uselessness” of PI sections for practitioners and researchers, the most recurrent set of reasons (50%) describes the content of such sections as too abstract, theoretical, vague, and difficult for practitioners to implement. A second set pertains to the audience of PIs (38%), with researchers mentioning that journals are not easily accessed and read by practitioners. Finally, further reasons list structure-related issues (10%), such as short sections or inadequate language. Fewer responses (23% overall) focus on the uselessness of PIs for researchers, mostly hinting at a general disengagement of academics with practice (), and again the trivial content and structure of these sections (e.g., short, repetitive, lacking depth).

Further insight into why PIs are omitted in academic writing emerges from scholars’ direct experiences of not including PI sections in their articles. Respondents mostly list reasons outside their control, attributable to the type of paper (45%), journal (39%), or, to a lesser extent, audience (9%). Specifically, PIs may not be provided for theoretical, methodological, or reflexive papers; PI sections are not always required by journals, or are excluded from manuscripts to meet strict word limits; and academics are the main audience of scientific publications while practitioners “do not read them”. Only 9% of responses ascribe reasons to the researchers themselves, mentioning that scholars may be focusing on publications *tout court* (i.e., for their careers) or lack a conventional structure to organize such sections.

With regard to the content and structure of PIs, which was often critiqued, the survey findings offer an interesting overview. In relation to the content, the most recurring theme

concerns what we would label “generic implications for practices” (38%) whereby the content of the PIs illustrates the consequences and impact of a study’s findings regarding practice, and how to translate those findings to the workplace. Within this theme, very few respondents (3%) specify that they explain *why* practitioners should consider their research results and related implications. They also report that they include the “*boundary conditions*” of their research (2%), that is to whom the research applies (e.g., in terms of organizations or sectors), and what contextual factors are to be considered (“there is no one size fits all”). The second theme describes PI content as a series of advice, recommendations, and suggestions for practice, primarily providing guidance on interventions, policies, concrete actions, behaviors, strategies, HR practices and training (22%). The third theme focuses on “implications for improvement” (12%), explaining how the research findings can assist in improving some aspects of a job, an organization, or management (e.g., how to “make organizations healthier, safer, and better functioning”, to improve HR practices or policies on work-life balance). Finally, respondents also state that the content of the sections depends on the paper, the specific findings, or, even, the journal and give examples based on their own research topics (12%).

As for the structure of the PI sections, this appears to be contingent on the topic, paper, or journal (13%), and no fixed structure to organize PIs is reported by respondents (13%). However, there seems to be consensus on keeping PI sections short (12%; e.g., 2-3 sentences or 1-2 paragraphs), presenting few PIs (8%; 2-3, maximum 4 PIs) towards the end of the manuscript (5%; in the Discussion or Conclusions), mostly organized following the order of the study findings/results (18%) or theoretical contributions (3%). Some respondents specify that PIs are presented from the “most abstract to the most specific”, the “most evident/obvious to the least evident/most subtle”, or starting from “the most important or relevant for practice” to emphasize the utility for practitioners. Their order can also be

arranged to suit the target audience (6%), the level of analysis (3%, e.g., the individual versus the organization) or the time-frame of a PI (1%, i.e. “immediate vs long-term implications”).

Finally, our findings show that 82% of participants engage with research dissemination using channels other than PI sections, mostly via presenting at conferences of professional associations (73.1%), using social media (63.5%), presenting findings to local communities/stakeholders (51.9%), and publishing in magazines (48.1%), newspapers (46.2%), and online blogs (30.8%).

Discussion

In a time in which greater emphasis –and expectations– are put on supervisory feedback (Pulakos et al., 2019), there is a need for an evidence-based approach to this practice. Because practical recommendations are better derived from an accumulated set of evidence rather than single studies (Rousseau et al., 2008), we systematically reviewed, analyzed and synthesized the PIs researchers offered practitioners based on their empirical studies on feedback. Our choice to review exclusively the PI sections was motivated by the fact that those portions of scientific articles are explicitly dedicated to this “translation effort” (Shapiro et al., 2007) and can be regarded as narratives – intentionally constructed by authors to persuade their audience (Deighton et al., 1989; Green & Brock, 2000). We therefore aimed at (i) taking stock of what such narratives, collectively, convey to practitioners; and (ii) offering guidelines to authors on how to effectively craft their narratives.

Our review points toward a critical reflection on what PIs, we as researchers, offer in scientific publications. Notwithstanding an increasing trend, consistent with previous studies (Bartunek & Rynes, 2010) and attesting to academics’ greater attention to reducing the research-practice divide (Rousseau, 2006), just below 60% of the articles we reviewed on feedback have a PI section. Moreover, despite the encouraging finding that the participants to our follow-up survey have included a PI section in about 80% of their published articles,

great variation still persists. A strong normative dimension seems to influence the propensity of researchers to include PIs in their manuscripts. This dimension comprises both the pressure from the journals (Cohen, 2007) or specific field to report indications for practice (as attested by the greater percentage of HR journals) and the researchers' belief about the mission and value of research as being applied and impactful.

The first contribution of this paper is a much-needed systematization of what research has to offer (and what is still lacking) in terms of PIs with regard to supervisory feedback. As we illustrated in the literature review, practitioner-oriented magazines (such as HBR) very often publish articles on how to give good-quality feedback. Yet, by looking at the content of the recommended PIs (i.e., the *what* question), we note that although these focus on the desirable characteristics of feedback, the PIs rarely specify how to achieve or improve good feedback giving. This may indicate a worrisome dearth of evidence on the antecedents of feedback, in favor of its consequences. As a result, researchers tell practitioners more often *why* it is important to work on and improve feedback, rather than *how* to do it – falling short on the relevance criterion (Nicolai & Seidl, 2010) and deviating from the key issues addressed in the practitioner-oriented literature. The (typically) generic nature of the PIs is also evident from our survey of scholars. The content of the PIs is mostly concerned with the broad impact of research findings on practice and only to a smaller extent focuses on specific suggestions, recommendations, and advice for practice.

With regard to the consequences of feedback (i.e., the *why* question), we documented a lack of attention in PIs to the issue of how improving feedback practices could impact negative individual outcomes and organizational constructs, despite the recent advocacy of feedback as the elective instrument to support and develop organizational performance (Pulakos et al., 2019).

With respect to the boundary conditions of PI application (i.e., the when and where questions), academics very rarely define under which circumstances and for whom the PIs should apply (only 12.7% of the total PIs reviewed; in the follow-up survey, only 2% of responses focused on boundary conditions as part of the content of PI sections). Considering how relevant contextual conditions are in influencing the implementation of workplace interventions (e.g., Nielsen & Randall, 2013), this may severely limit the enactment of the suggested actions (Beyer, 1997). Moreover, presenting academic findings in a way that eludes the context and aims to offer generalizations valid for a broad array of situations, is likely inadequate for managerial decision making (Boland et al., 2001), and perceived of little use (Mohrman et al., 2001). When looking at the proposed boundary conditions, researchers concentrate predominantly on individual elements, while much less attention is dedicated to higher-level conditions, including the organizational and national levels, and virtually no PIs have been addressing the occupational level. The latter, striking finding aligns with the scarce attention devoted to the industry context in much organizational research (O’Leary & Almond, 2009). Therefore, the narratives constructed around the implications of feedback studies appear to overlook the overarching contextual factors that can facilitate or inhibit feedback implementation, and seem to point toward “one size fits all” recommendations (Johns, 2018). Finally, and reflecting the scarce number of PIs addressing the relational antecedents of feedback, only a few PIs identified the interpersonal conditions for their application, which again is surprising in light of the social dimension of feedback giving (Steelman et al., 2004).

A guide to crafting PI sections

We echo other authors in calling on scholars to invest more effort in translating their findings into managerial or organizational implications because this impacts their ability to (continue to) ask relevant research questions in the future (Pearce & Huang, 2012), as also

acknowledged by some of the scholars surveyed. Guidelines on the content and structure of PI sections would assist researchers with the writing of such sections. To this purpose, we provide a guide to crafting PIs that stems from the W-H question framework. This constitutes the second contribution of our study, which transcends the feedback literature and speaks to the management and psychology literatures in general.

First, we recommend that researchers use the W questions as a roadmap when designing and reporting their research. In the design phase, following such a roadmap will ensure that many facets are empirically examined in the research study. Scholars have previously advised along similar lines (Johns, 2018). We recommend that studies are richly designed in order to cover as many aspects of interest for practical purposes as possible (Hodgkinson et al., 2001). In the reporting phase, it is likewise useful to follow the W questions roadmap to make sure that all the points have been addressed and commented on in one's PI section (see our practical implications as an example). Researchers may risk focusing their attention exclusively on the relationship central to the study, and yet many other relevant indications for practice may be leveraged by showing the details of one's research features (e.g., sample features, including the organizational or occupational context; scale items to derive specific applications).

Second, with respect to specifically improving the structure and rhetoric of PI sections, the Who question can provide useful angles. While PI sections in academic journals may be neither the best nor the only communication channel open to practitioners (Latham, 2007), communicating PIs effectively starts with crafting a message for an identified audience (Van Eemeren, 2010). Surprisingly, our analysis of the who question revealed that over one third of the reviewed PIs did not identify or address any specific audience. To ignore the stakeholders who are influenced, or can influence the application of knowledge in a specific area (in this case, feedback) could perpetuate the existing divide between practice

and research (Hodgkinson et al., 2001). Identifying a clear stakeholder group, on the other hand, will likely facilitate the identification and provision of actionable or informational recommendations, because they would tap into topics and action spheres directly pertinent to the chosen stakeholders.

Such a reflection exercise would also prove useful to identify additional ways that researchers can address their preferred audiences and increase their impact (Wickert et al., 2021). As became clear from our survey, the percentage of academics engaging with research dissemination is large (82%); so, working effortfully on PI sections may lead to envisioning a convincing dissemination strategy to reach a broader target audience. The PI sections may even constitute a preliminary draft for an article written for the larger audience, despite the fact that some scholars see PI writing as perfunctory. Finally, clarifying the audience of the envisioned PIs would facilitate the use of empirical findings by other academics in their own teaching and development programs targeting the same population.

Third, researchers may be well served by reconsidering *how* they write PIs, given that our surveyed scholars commented that PI sections are generally short, vague, and make inadequate use of language. In particular, they may examine their own use of the three deontic modalities, namely: necessity, possibility and intention/prediction, and assess which may better convey their PIs and how some may be reformulated. Necessity modalities are the most common and, together with researchers' orientation to provide actionable PIs, suggest that academics seem to mostly focus on and communicate instructions based on their findings. Such formulation could be very impactful, similar to what Boland and colleagues (2001) labeled "particular knowledge representations", referring to academic knowledge being presented to practitioners in a concrete, literal, and unambiguous way, which has proven effective in fostering decision making among managers (Boland et al., 2001). Nevertheless, especially if PIs lack contextualization as previously mentioned, necessity

formulations could also be perceived as overly directive and almost patronizing by professionals who work in the field (Bartunek & Rynes, 2010). For this reason, we suggest resorting more often to “possibility” or “intention/prediction” modalities. The first type offers one or more options to practitioners, hence reinforcing their professional identity with regard to making a competent choice (Levine, 2020). The second type, intention/prediction, grants even further agency to the stakeholders who will be making the decisions regarding the actions proposed by the writer. The “predictive” or intentional formulation can truly convey an “evidence-based” mindset. Since evidence does not equate to a solution, or provide the answer to a problem (Barends et al., 2014), offering evidence-based insights is not about offering solutions. Rather, it is about enabling readers to critically assess and understand, also via theory, the available evidence. Intentional/predictive modalities can more precisely help practitioners understand the empirical findings to then identify a course of action. Predictions concerning the outcomes of certain PIs may include simply spelling out the practical meaning of statistical effects (see for example e.g., Bouville et al., 2018).

In conclusion, we note that our suggested guide to crafting more impactful PIs is only applicable in the presence of broader support for such translation efforts. In light of the reasons reported by our surveyed scholars for avoiding PIs, journals should invite authors to write more detailed PI sections (or, as some do, to set them out in bullet points – see for example the Human Resource Management Journal); adjust word or page limits; and make articles more accessible to non-academic audiences. These recommendations, of their very nature, involve actors other than the authors (i.e., editors, publishers) and feed broader debates that are beyond the scope of this article (Aguinis et al., 2014).

An application of the W-H question framework: Implications for feedback practice

In the following, we offer an exemplary application of the W-H question framework by providing PIs on supervisory feedback based on our review. We start with the *who* since

the identification of key audience groups is crucial to craft and propose recommendations (i.e., *what*) that are relevant to each specific group, including appropriate details (i.e., *when and where*) and persuasive reasons about *why* these recommendations should be considered and implemented. The bulk of research on feedback has altogether accrued important indications for mainly two categories of audience, namely managers on the one hand, and HR practitioners and organizations in general, on the other hand. To only a minimal extent have PIs addressed employees. This is also confirmed by the follow-up survey, which shows that only 5% of responses identify employees as the target audience of PIs. These typically address HR practitioners (17.1%) and organizational managers (14.1%).

Starting with the managerial audience, in terms of *what* recommendations managers are offered (i.e., the content), the set of PIs we reviewed clearly indicate to managers the need to pay attention to numerous features of the feedback they provide, so that it is timely and frequent (Kuvaas et al., 2017), constructive (Chory & Kingsley Westerman, 2009; Dahling et al., 2017), problem-solving oriented (Sommer & Kulkarni, 2012), and tactful (Dahling et al., 2012). Among the most actionable suggestions, researchers recommend balancing positive and negative elements in a feedback conversation (Gregory & Levy, 2011), using temporal vs. social comparison (Chun et al., 2018), and referring to clear standards of performance that would be previously set, thus including feedback as one phase of a larger performance management cycle (Kuvaas et al., 2017; Sommer & Kulkarni, 2012). Managers are also invited to anticipate, and possibly prevent, likely negative reactions from the recipients by adjusting their feedback or paying extra care in communicating it, depending on the employees' feedback orientation and other personality traits (Earley et al., 1999; Gabriel et al., 2014). These represent virtually the only boundary conditions pointed out to managers, addressing the *when* and *where* question of our framework. As for *why* managers should take actions about feedback, the suggested PIs point managers toward better handling of

employees' responses to feedback via, for example, impacting employees' emotional responses (e.g., reducing negative emotions and adverse reactions) and improving their perceptions of the feedback received (e.g., in relation to its fairness and quality). Moreover, the PIs promise managers to boost employees' motivation to act on the feedback received and enhance their knowledge, skills, learning, and, ultimately, performance.

Moving to the audience group of HR practitioners and organizations in general, they are especially called upon to train managers to give feedback (Tata, 2002; Whitaker & Levy, 2012) and, to a much lesser extent, to train employees to receive it (Eva et al., 2019), addressing the *what* question. Regarding the *when* and *where* question, i.e. the boundary conditions of the PIs, HR practitioners and organizations can adjust feedback practices to suit the characteristics of employees and the organizational resources. For example, organizations could put in place more developmental feedback practices and more support for individuals who are less confident, inexperienced, or newly hired (Bailey & Austin, 2006); similarly, they could provide more feedback when other developmental activities are not viable (e.g., developmental assignments, training). The benefits that the PIs could bring to HR professionals and organizations (i.e., the *why* question) comprise improved employee outcomes, including positive attitudes towards their job and the organization, increased in-role and extra-role performance, and reduced counterproductive behaviors; advantages for leadership development within the organization by, for example, facilitating supervisory coaching; and enhanced organizational practices and processes, such as HR practices and organizational climate and culture.

As anticipated, employees are the overlooked group when it comes to PIs, and *what* they are recommended is to seek feedback, not only from their supervisors but also from colleagues (Peng & Lin, 2016; Zhang et al., 2017). However, current research does not offer

them much indication on how to process the feedback, cope with it and get the most from it, nor does it provide any contextualized suggestion for seeking feedback.

In relation to the rhetorical construction of the PIs, we invite the reader to notice *how* we framed the above recommendations. In line with our guide on crafting PIs (see previous section), we have mostly used a mix of possibility/permission (e.g., “could”, “can”) and intention/prediction (e.g., “would”) modalities. In two instances, we have resorted to obligation/necessity/advice modalities (i.e., “need to”, “should”) to stress the importance of providing good quality feedback, explicitly directing managers toward actionable suggestions to improve the characteristics of feedback.

Study limitations and future research

Literature reviews are the result of a series of choices made by the researchers, which could nevertheless have been different and hence influence the findings. This, of course, holds true for our systematic review as well. As our focus was on supervisory feedback in organizational settings, we selected discipline-specific databases and used classification codes and other limiters to narrow our starting pool of articles. While this certainly resulted in a very accurate and targeted literature search (Harari et al., 2020), we might have missed some relevant studies. Moreover, we employed qualitative data analysis to aid in our classification of PIs as narratives. Alternative qualitative methods (e.g., text mining) or different approaches to systematic review (e.g., interpretive reviews; Madden et al., 2018) could have been choices just as valid as ours and would have led to emphasizing different aspects.

In terms of future research directions, we highlight some – with one caveat, namely that PI sections are only partial accounts of study findings. Therefore, a more articulated research agenda should be identified based on traditional reviews. Still, when addressing “why” practitioners should attend to the recommended PIs, feedback is often presented as a

tool to improve individual and, in turn, collective performance (DeNisi & Smith, 2014).

However, PIs seem to emphasize, to a very small extent, the effects of feedback at the organizational level, which could be the topic of future research. The “what” question would open the way to more studies that examine the antecedents of feedback and specifically those features that make for good feedback. Moreover, many indications for practice call for managers to be trained and their skills to be developed, and yet paradoxically PIs do not speak to the effectiveness of such interventions.

A last group of research directions can be derived from the “when and where” question, with the aim being to contextualize the PIs. Our findings speak clearly as to which levels need to be further explored when discussing the applicability of feedback PIs – namely, the interpersonal, national, and occupational levels.

Conclusions

In conclusion, our review of the PIs of feedback studies, complemented by a survey to academics, has allowed us to take stock of a great deal of evidence-based indications for managerial and organizational practices. It has also shown which aspects are typically overlooked in the PI narratives. We hope that this will stimulate researchers in the psychology and management disciplines (and not only feedback researchers) to appreciate the relevance of PIs and to adopt our proposed W-H questions framework to craft impactful PI sections.

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*Note: the full references of the articles included in the review are reported in the supplementary material (S2)

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Table 1*Proportions of articles with PI sections throughout the years*

All journals	Overall	1996-1999	2000-2009	2010-2019
PI section exists	57.5% (69/120)	42.9% (3/7)	40.5% (17/42)	69% (49/71)
PI section on its own	71% (49/69)	66.7% (2/3)	64.7% (11/17)	73.5% (36/49)
PI combined with theoretical contribution	18.8% (13/69)	33.3% (1/3)	0% (0/17)	24.5% (12/49)
PI combined with future research or limitations or conclusion	10.1% (7/69)	0% (0/3)	35.3% (6/17)	2% (1/49)

Note. The numbers in parenthesis are (the number of papers in that category/the total number of papers)

Table 2*Proportions of articles with PI sections based on journal rankings and disciplines*

AJG rankings and disciplines		PI section existence	PI section on its own
AJG rankings	4	69.2% (27/39)	46.2% (18/39)
	3	55.6% (10/18)	38.9% (7/18)
	2	52% (13/25)	40% (10/25)
	1	20% (1/5)	20% (1/5)
	None	54.5% (18/33)	39.4% (13/33)
AJG disciplines	General management, ethics and social responsibility	75% (6/8)	50% (4/8)
	Human resource management and employment studies	92.9% (13/14)	64.3% (9/14)
	Management development and education	50% (1/2)	50% (1/2)
	Organization studies	40% (6/15)	40% (6/15)
	Psychology (general)	0% (0/1)	0% (0/1)
	Psychology (organizational)	53.3% (24/45)	33.3% (15/45)
	Public sector and health care	0% (0/1)	0% (0/1)
	Sector studies	100% (1/1)	100% (1/1)
None	54.5% (18/33)	39.4% (13/33)	

Note. The numbers in parenthesis are (the number of papers in that category/the total number of papers in rankings or disciplines)

Table 3

The What: Categorization of actions

Informational PIs (16%)

*Thus, **being aware** of strategies that are likely to attenuate undesirable reactions to feedback in high-power receivers may encourage individuals to provide the powerful with necessary but negative feedback. (Niemann et al., 2014)*

*Appraisers should **consider the average social comparison orientation profiles of appraisees** being evaluated, as well as the contextual factors that make social comparison processes more or less likely. (Luffarelli et al., 2016)*

Aspirational PIs (30%)

*The predictive value of the initial self-assessment and the significant moderating effects of initial self-efficacy to criterion measures reinforces the need for organizations to support the focal individual **by facilitating both the feedback and development process**. (Bailey & Austin, 2006)*

*First implication of our research is to **take care in providing negative feedback**. (Belschak & Den Hartog, 2009)*

*If supervisors are aware that their daily interactions with subordinates affect subordinate work behaviors, perhaps supervisors **can shape these interactions** to elicit more desired subordinate behaviors. (Norris-Watts & Levy, 2004)*

Actionable PIs (54%)

*Our findings highlight the importance of designing feedback and development programmes that **include well-aligned design features and fit individuals' attributes**. (Anseel et al., 2011)*

*In dealing with the busy boss, one can facilitate the process by **making sure the timing is good and having specific questions ready**. (Adams, 2005)*

*In managerial literature, the general advice is regularly to recognize personnel doing a good job and, **when delivering criticism, to do so without delay and with focus on the task**. (Pousette et al., 2003)*

Figure 1

Article selection process

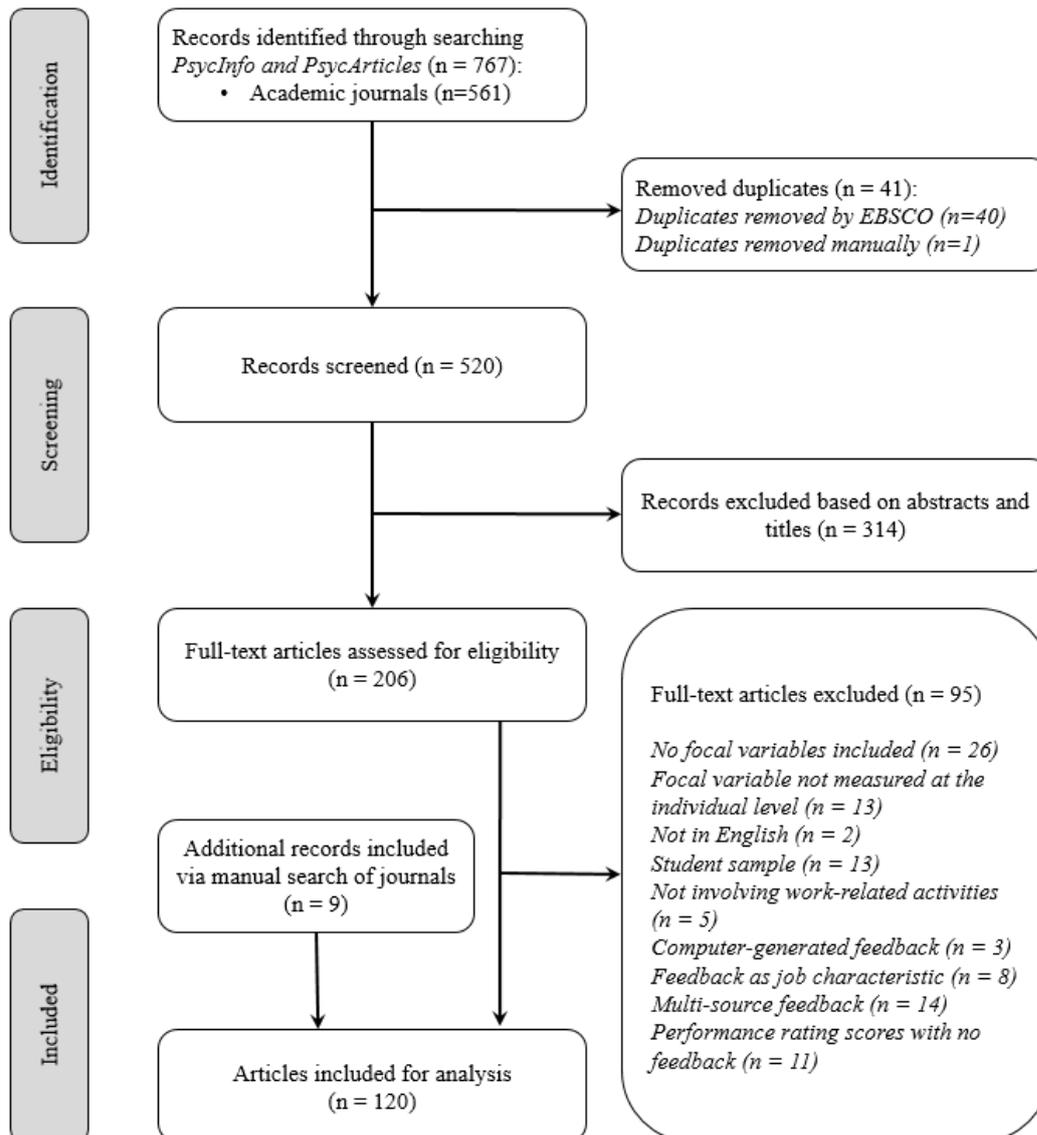


Figure 2

The Why: Analytical coding process for feedback outcomes

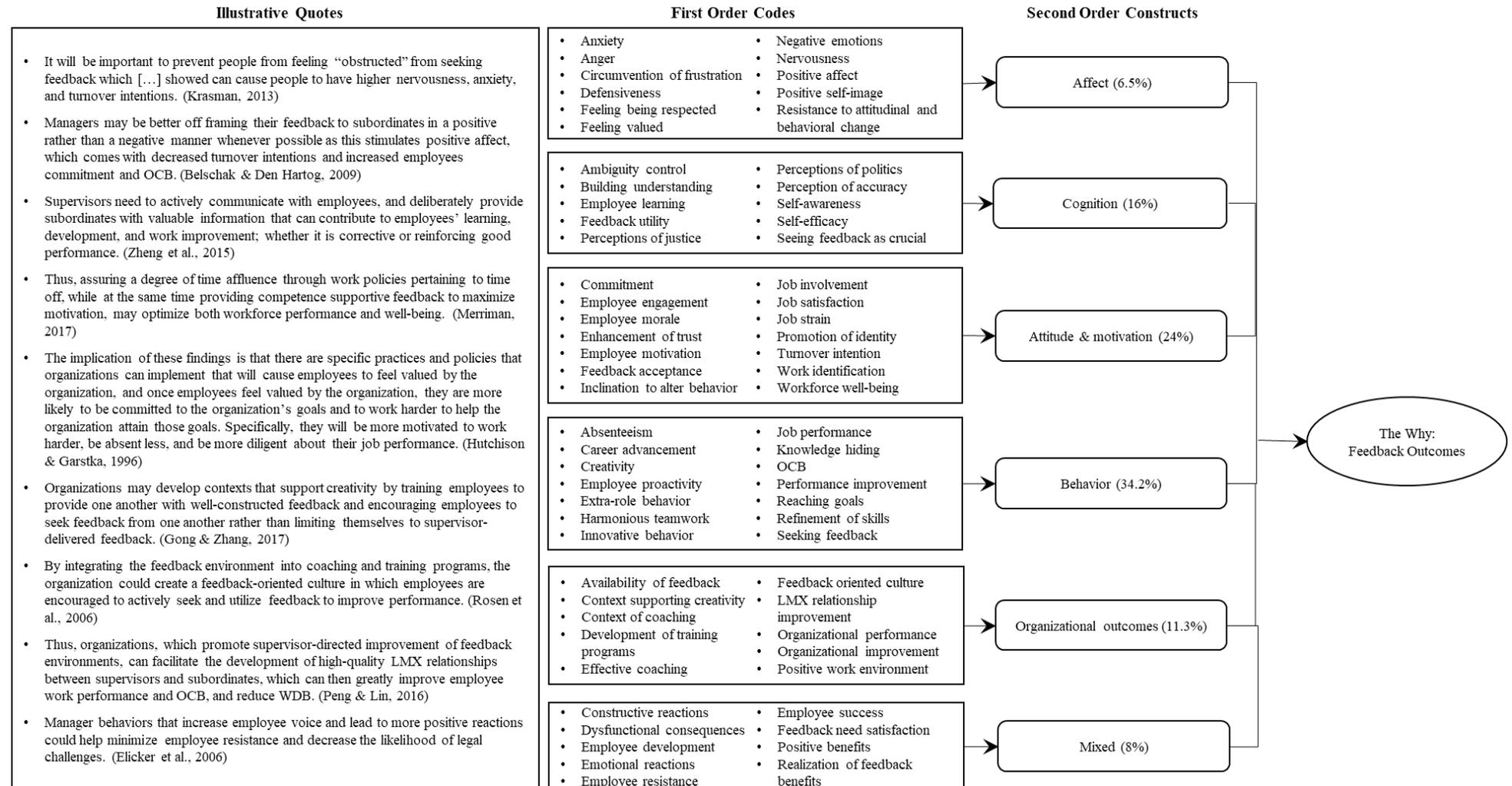


Figure 3

The When and Where: Analytical coding process for feedback conditions

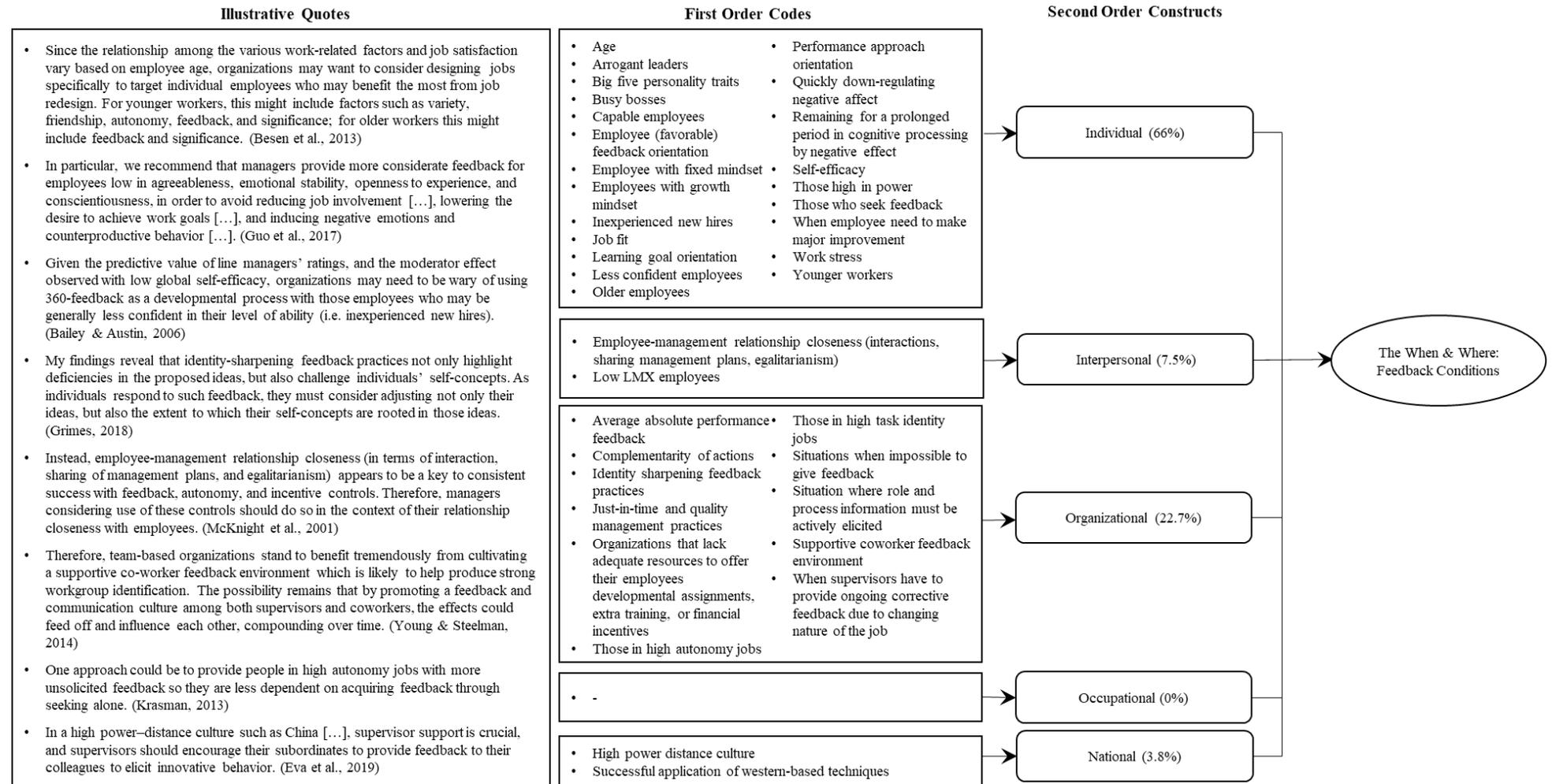


Figure 4

The Who: Analytical coding process for audience

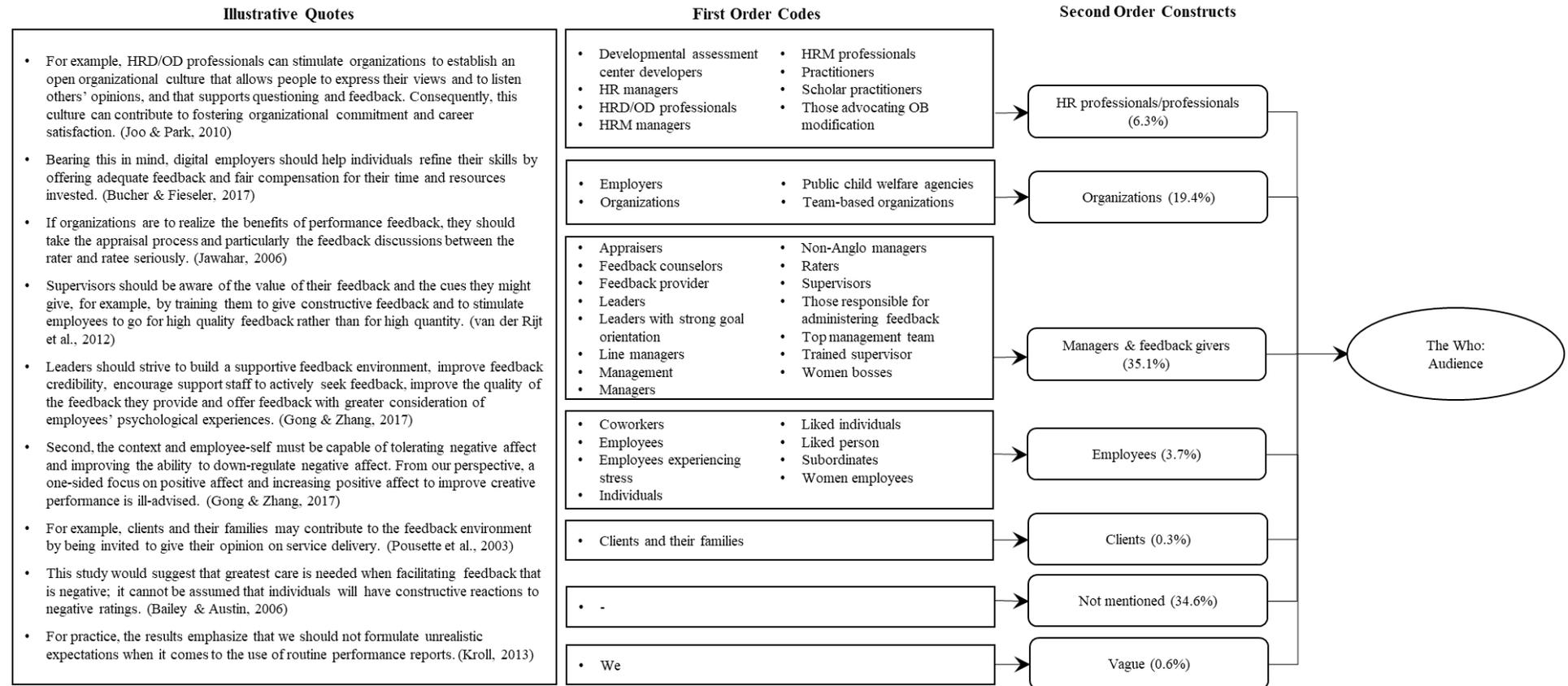


Figure 5

The How: Analytical coding process for deontic modalities

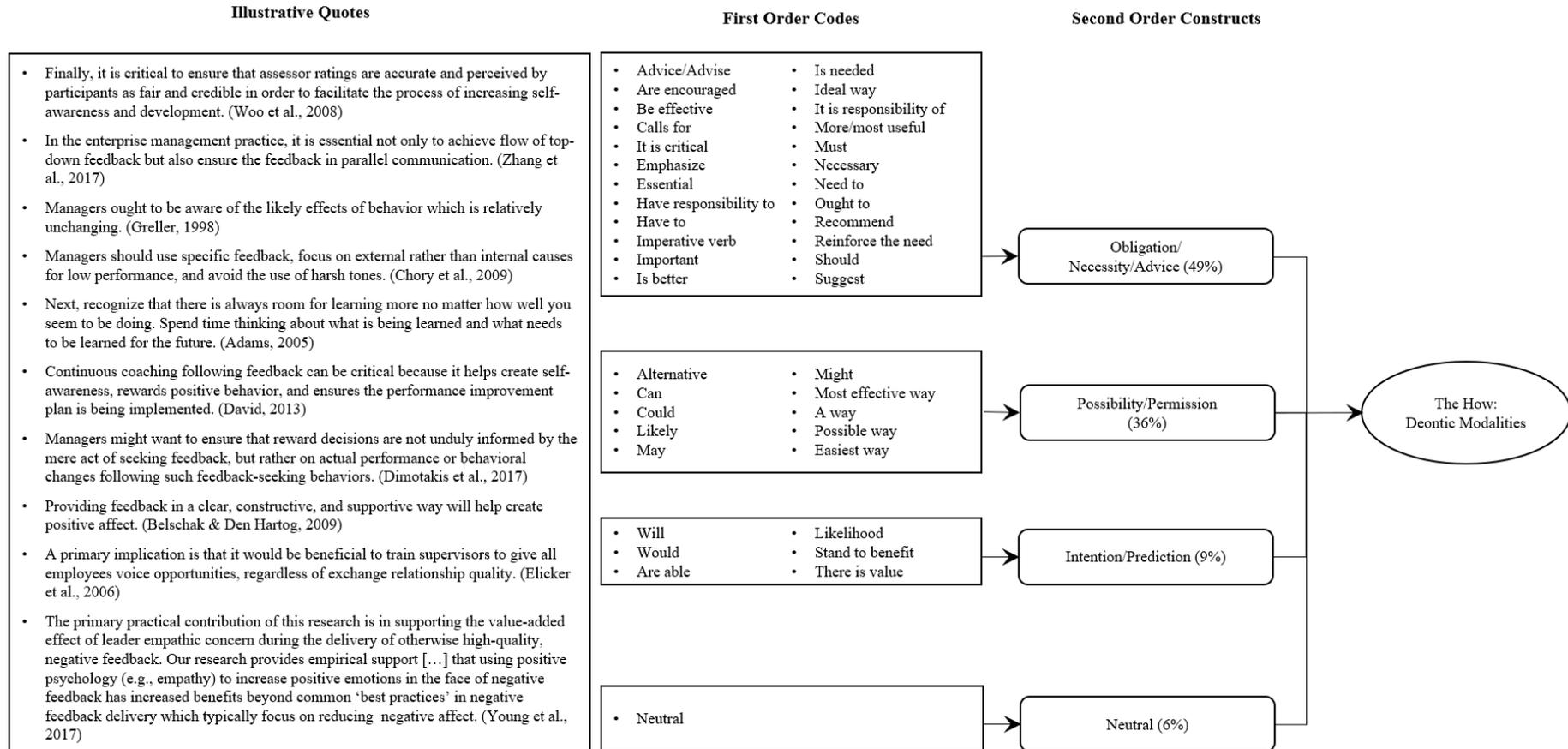


Table S1

Selected classification codes in PsycInfo and PsycArticles for paper selection

Classification codes	Description
2228	occupational and employment testing
2360	motivation and emotion
2420	learning and motivation
3600	industrial and organizational psychology
3620	personnel management and selection and training
3630	personnel evaluation and job performance
3640	management and management training
3650	personnel attitudes and job satisfaction
3660	organizational behavior

Table S2*Articles included in the review and number of PI statements from each of the articles*

#	Paper	# PIs
1	Adams, S. M. (2005). Positive affect and feedback-giving behavior. <i>Journal of Managerial Psychology</i> , 20(1), 24–42.	11
2	Anseel, F., & Lievens, F. (2007). The long-term impact of the feedback environment on job satisfaction: A field study in a Belgian context. <i>Applied Psychology: An International Review</i> , 56(2), 254–266.	0
3	Anseel, F., Van Yperen, N. W., Janssen, O., & Duyck, W. (2011). Feedback type as a moderator of the relationship between achievement goals and feedback reactions. <i>Journal of Occupational and Organizational Psychology</i> , 84, 703–722.	3
4	Arnetz, B., & Blomkvist, V. (2007). Leadership, mental health, and organizational efficacy in health care organizations: Psychosocial predictors of healthy organizational development based on prospective data from four different organizations. <i>Psychotherapy and Psychosomatics</i> , 76(4), 242–248.	0
5	Atwater, L. E., & Brett, J. F. (2005). Antecedents and consequences of reactions to developmental 360° feedback. <i>Journal of Vocational Behavior</i> , 66(3), 532–548.	0
6	Au, A. K. C., & Chan, D. K. S. (2013). Organizational media choice in performance feedback: A multifaceted. <i>Journal of Applied Social Psychology</i> , 43(2), 397–407.	0
7	Austin, J., Weatherly, N. L., & Gravina, N. E. (2005). Using Task Clarification, Graphic Feedback, And Verbal Feedback To Increase Closing-Task Completion In A Privately Owned Restaurant. <i>Journal of Applied Behavior Analysis</i> , 38(1), 117–120.	0
8	Bailey, C., & Austin, M. (2006). 360 Degree feedback and developmental outcomes: The role of feedback characteristics, self-efficacy and importance of feedback dimensions to focal managers' current role. <i>International Journal of Selection and Assessment</i> , 14(1), 51–66.	9

#	Paper	# PIs
9	Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. <i>Applied Psychology: An International Review</i> , 58(2), 274–303.	8
10	Besen, E., Matz-Costa, C., Brown, M., Smyer, M. A., & Pitt-Catsouphes, M. (2013). Job characteristics, core self-evaluations, and job satisfaction: What's age got to do with it? <i>The International Journal of Aging and Human Development</i> , 76(4), 269–295.	1
11	Bezuijen, X. M., van Dam, K., van den Berg, P. T., & Thierry, H. (2010). How leaders stimulate employee learning: A leader-member exchange approach. <i>Journal of Occupational and Organizational Psychology</i> , 83(3), 673–693.	2
12	Björklund, C., Grahn, A., Jensen, I., & Bergström, G. (2007). Does survey feedback enhance the psychosocial work environment and decrease sick leave? <i>European Journal of Work and Organizational Psychology</i> , 16(1), 76–93.	1
13	Borden, L., Levy, P. E., & Silverman, S. B. (2018). Leader Arrogance and Subordinate Outcomes: the Role of Feedback Processes. <i>Journal of Business and Psychology</i> , 33(3), 345–364.	3
14	Bucher, E., & Fieseler, C. (2017). The flow of digital labor. <i>New Media and Society</i> , 19(11), 1868–1886.	1
15	Chory, R. M., & Kingsley Westerman, C. Y. (2009). Feedback and fairness: The relationship between negative performance feedback and organizational justice. <i>Western Journal of Communication</i> , 73(2), 157–181.	6
16	Chun, J. S., Brockner, J., & De Cremer, D. (2018). How temporal and social comparisons in performance evaluation affect fairness perceptions. <i>Organizational Behavior and Human Decision Processes</i> , 145, 1–15.	5
17	Cook, T., & Dixon, M. R. (2006). Performance feedback and probabilistic bonus contingencies among employees in a human service organization. <i>Journal of Organizational Behavior Management</i> , 25(3), 45–63.	0
18	Cooper, M. D. (2006). Exploratory Analyses of the Effects of Managerial Support and Feedback Consequences on Behavioral Safety Maintenance. <i>Journal of</i>	0

#	Paper	# PIs
	<i>Organizational Behavior Management</i> , 26(3), 1–41.	
19	Dahling, J. J., Chau, S. L., & O'Malley, A. (2012). Correlates and consequences of feedback orientation in organizations. <i>Journal of Management</i> , 38(2), 531–546.	1
20	Dahling, J. J., Gabriel, A. S., & MacGowan, R. (2017). Understanding typologies of feedback environment perceptions: A latent profile investigation. <i>Journal of Vocational Behavior</i> , 101(June 2016), 133–148.	4
21	David, E. M. (2013). Examining the role of narrative performance appraisal comments on performance. <i>Human Performance</i> , 26, 430–450.	5
22	Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center feedback in relation to development self-efficacy, feedback seeking, and promotion. <i>Journal of Applied Psychology</i> , 102(11), 1514–1527.	4
23	Durgin, A., Mahoney, A., Cox, C., Weetjens, B. J., & Poling, A. (2014). Using task clarification and feedback training to improve staff performance in an East African nongovernmental organization. <i>Journal of Organizational Behavior Management</i> , 34(2), 122–143.	1
24	Earley, P. C., Gibson, C. B., & Chen, C. C. (1999). How did I do versus how did we do Cultural contrasts of performance feedback use and self-efficacy. <i>Journal of Cross-Cultural Psychology</i> , 30(5), 594–619.	2
25	Elicker, J. D., Levy, P. E., & Hall, R. J. (2006). The role of leader-member exchange in the performance appraisal process. <i>Journal of Management</i> , 32(4), 531–551.	3
26	Eva, N., Meacham, H., Newman, A., Schwarz, G., & Tham, T. L. (2019). Is coworker feedback more important than supervisor feedback for increasing innovative behavior? <i>Human Resource Management</i> , 58(4), 383–396.	7
27	Fante, R., Davis, O. L., & Kempt, V. (2013). Improving Closing Task Completion in a Drugstore. <i>Journal of Organizational Behavior Management</i> , 33(1), 77–83.	0
28	Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance improvement efforts in response to negative feedback: The roles of source	2

#	Paper	# PIs
	power and recipient self-esteem. <i>Journal of Management</i> , 27(1), 79–97.	
29	Feys, M., Libbrecht, N., Anseel, F., & Lievens, F. (2008). A closer look at the relationship between justice perceptions and feedback reactions: The role of the quality of the relationship with the supervisor. <i>Psychologica Belgica</i> , 48(2–3), 127–156.	3
30	Gabriel, A. S., Frantz, N. B., Levy, P. E., & Hilliard, A. W. (2014). The supervisor feedback environment is empowering, but not all the time: Feedback orientation as a critical moderator. <i>Journal of Occupational and Organizational Psychology</i> , 87, 487–506.	4
31	Gaudine, A. P., & Saks, A. M. (2001). Effects of an absenteeism feedback intervention on employee absence behavior. <i>Journal of Organizational Behavior</i> , 22, 15–29.	2
32	Geddes, D., & Konrad, A. M. (2003). Demographic differences and reactions to performance feedback. <i>Human Relations</i> , 56(12), 1485–1513.	1
33	Gong, Z., Li, M., Qi, Y., & Zhang, N. (2017). Follower-centered perspective on feedback: Effects of feedback seeking on identification and feedback environment. <i>Frontiers in Psychology</i> , 8(SEP), 1492.	3
34	Gong, Z., & Zhang, N. (2017). Using a feedback environment to improve creative performance: A dynamic affect perspective. <i>Frontiers in Psychology</i> , 8, 1398.	4
35	Gravina, N., Vanwagner, M., & Austin, J. (2008). Increasing physical therapy equipment preparation using task clarification, feedback and environmental manipulations. <i>Journal of Organizational Behavior Management</i> , 28(2), 110–122.	0
36	Gregory, J. B., & Levy, P. E. (2011). It's not me, it's you: A multilevel examination of variables that impact employee coaching relationships. <i>Consulting Psychology Journal</i> , 63(2), 67–88.	9
37	Greller, M. M. (1998). Participation in the performance appraisal review: Inflexible manager behavior and variable worker needs. <i>Human Relations</i> , 51(8), 1061–1083.	4
38	Grimes, M. G. (2018). The pivot: How founders respond to feedback through idea and identity work. <i>Academy of Management Journal</i> , 61(5), 1692–1717.	1

#	Paper	# PIs
39	Guo, Y., Liao, J., Liao, S., & Zhang, Y. (2014). The mediating role of intrinsic motivation on the relationship between developmental feedback and employee job performance. <i>Social Behavior and Personality: An International Journal</i> , 42(5), 731–741.	2
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