

Academic perceptions of the research evidence base in work and organizational psychology

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Academic perceptions of the research evidence base in work and organizational psychology: A European perspective

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There has been a growing interest in evidence-based management. A core component is a body of high-quality research evidence to inform practice. Initial research with human resource managers in the United States and the Netherlands reveals only modest knowledge about a number of 'widely documented' research findings. However, it is unclear whether research experts would display any greater agreement about the research evidence. The present study addresses this issue by exploring levels of agreement about the quality of the research evidence base in work and organizational (W/O) psychology using a pan-European sample of 75 senior academic W/O psychologists who completed two rounds of a study, first identifying core findings in the field of W/O psychology and then reporting levels of agreement about them. The results show that there were only seven of 24 core findings on which over 75% agreed that there was good-quality evidence. The challenges of developing and utilizing an evidence-based approach are discussed and it is concluded, in agreement with Briner and Rousseau (2011a), that there is some way to go before W/O psychologists can begin to feel confident about the quality of much of their research evidence.

There has been a growing interest among social scientists and policy makers in an evidence-based approach to inform decision making. Much of the impetus comes from medicine where the case for evidence-based clinical decisions has been promoted for some time (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). However, it has been claimed that the evidence in the social sciences is of a different order (Pawson, 2006) and consensus about what we know, and more particularly what we are sufficiently confident we know well enough to guide policy and practice, is harder to reach. Among the social sciences, psychology, with its strong positivist tradition, probably comes closest to being in a position to attempt to follow the medical model.

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The debate about the feasibility of an evidence-based approach has achieved some impetus in management research. Pfeffer and Sutton (2000) argued, controversially, that research knowledge was now widely disseminated and the main challenge lay in applying that knowledge, what they termed *The Knowing-Doing Gap*. The issue had previously been highlighted in a presidential address to the US Academy of Management by Hambrick (1994) entitled 'What if the Academy Actually Mattered?', which rather implied that it did not and that its accumulated knowledge was too often ignored by managers. Subsequently, the importance of an evidence-based approach has been championed by leading academics such as Rousseau (see, e.g., Rousseau, 2006) and has itself become the focus of a growing body of research and debate. This debate has extended to the field of work and organizational (W/O) psychology, reflected, in a polemical article by Briner and Rousseau (2011a) titled 'Evidence-Based I-O Psychology: Not There Yet'. The title holds out the promise of future progress, but also suggests that we have some distance to travel.

As the term implies, evidence-based practice means making best use of available evidence that may be derived from a variety of sources. This is reflected in Briner, Denyer, and Rousseau's (2009) definition of evidence-based management:

Evidence-based management is about making decisions through the conscientious, explicit and judicious use of four sources of information: practitioner expertise and judgment, evidence from the local context, a critical evaluation of the best available research evidence, and the perspectives of those people who might be affected by the decision (p. 19).

In moving towards an evidence-based Industrial-Organizational (I-O) or, to use the European term, W/O psychology, one key step is to establish the quality of the research evidence. This process is similar to that in medical research and is typically based on an assessment of the research evidence using approaches such as meta-analysis and systematic reviews. In medicine, an extensive and consistent evidence base will lead to recommendations for practice. Doctors can then choose to accept or ignore the evidence. However, the key prior step is agreement about the quality of the evidence among the experts who conduct and evaluate the systematic reviews of the evidence base. If the experts cannot agree, it is unreasonable to expect policy makers and practitioners to have confidence in acting on any research evidence that is presented to them.

Briner and Rousseau cite Friedson's (1986) claim that 'the hallmark of any profession is the existence of an agreed-upon core of knowledge' (Briner & Rousseau, 2011a, p. 3). Therefore, while the definition of evidence-based management cited above implies that evidence drawn from the best-available research is just one source of information, a strong consensus based on high-quality research evidence provides a foundation for evidence-based practice. It is through the production of convincing research evidence that a 'common knowledge base' can be developed through which academic researchers can make a distinctive contribution to evidence-based practice in W/O psychology.

In this context, the aim of this paper is to explore the level of agreement among informed European W/O experts - a sample of leading professors and senior academic researchers - about established knowledge in W/O psychology. They constitute an important group because they act as the gatekeepers of research, providing reviews for funding bodies and often acting in an editorial role for journals. Through these roles and in their capacities as lecturers and advisers to industrial organizations and policy makers, they serve as major brokers of research and as translators of research knowledge to a number of key constituencies. An exploration of the level of agreement about the 'best

available research evidence' among this group would provide an indication of progress towards a research-informed evidence-based W/O psychology. It will also provide an indication of the topics about which there is more or less agreement about the quality and consistency of the evidence.

We start by reviewing relevant research and writing on evidence-based management and W/O psychology. We then outline the methodology adopted for the study before presenting the results. This is followed by a discussion of the implications of the findings and some analysis of future prospects for evidence-based W/O psychology.

Evidence about perceptions of the evidence

W/O psychology addresses issues with the potential to have considerable effects on individuals and organizations. There is a temptation both to look for ready answers to problems and to provide them. In some areas, including, for example, aspects of selection and assessment (Schmidt & Hunter, 1998), there is an impressive body of evidence that can provide a basis for policy recommendations. In others, and Briner and Rousseau (2011a) cite as examples emotional intelligence and unstructured interviews, the evidence to support action by organizations is much weaker.

Management is considerably broader than W/O psychology, increasing the challenges of developing a convincing evidence base for policy and practice. In an initial attempt to find out how well informed managers were about the existing research evidence, Rynes, Colbert, and Brown (2002) explored the extent to which a sample of senior human resource (HR) managers agreed with 35 'well documented' research findings. Some statements were deliberately incorrect, so respondents had to indicate whether they were true or false. An implicit assumption in selecting a sample of HR managers is that they might be knowledgeable about research findings concerning management of people at work and the items in the survey reflected this.

The results, based on response categories of 'true', 'false', and 'uncertain', revealed that on average, the managers provided correct answers for 57% of the items. One possible explanation for this low level of knowledge was that very few HR managers read academic journals and were more likely to get information from colleagues or web sites. Rynes, Colbert, and Brown considered whether HR managers were unaware of research findings or misinformed, arguing that academic researchers need to play a greater role as translators of knowledge by, for example, contributing to professional journals. However, this assumes that there is an agreed body of research-based knowledge.

Sanders, van Riemsdijk, and Groen (2008) replicated the American study among a sample of 626 Dutch HR managers who answered an average of 62% of the items correctly. Regression analysis revealed that those likely to give more correct answers were more highly educated, did more reading of HR material and had a more positive attitude to the results of academic research. Both studies fail to support Pfeffer and Sutton's (2000) claim that knowledge is widely shared among managers.

The focus of these studies is on HR managers' knowledge concerning 'well-established' findings. This assumes that these findings are in fact well-established and generally accepted in the relevant academic research community. If this is not the case, the messages communicated by academics and others will not be consistent and in such a context, it is difficult to blame HR managers for unclear perceptions of what is true or false. Rynes and her colleagues acknowledged that they had identified topics on which there was a gap between research findings and HR managers' knowledge but they did not know whether these topics reflected 'important' findings in the view of experts

from the academic community. They therefore undertook a further study (Rynes, Giluk, & Brown, 2007) asking a sample of academics about what they regarded as ‘the five most fundamental findings from human resources research that all practicing managers should know. Your answer need not cite specific studies – we are interested in fundamental generalizable principles’ (p. 989). Their sample, which they described as ‘HR research experts’ (p. 989), consisted of members of the editorial boards of four top American journals in the field, namely *Personnel Psychology*, *The Journal of Applied Psychology*, *The Academy of Management Journal*, and *Human Resource Management*. They received responses from 85 academics from a potential sample of 208.

Only six topics received at least 10 mentions, raising questions about the level of consensus about the fundamental findings. The six topics (Rynes *et al.*, 2007: 989) were

- (1) General mental ability is the strongest, or one of the strongest, predictors of performance (22 mentions)
- (2) Setting goals and providing feedback is a highly effective motivational practice (22 mentions)
- (3) HR practices are important to organizational outcomes (21 mentions)
- (4) Structured interviews are more valid than unstructured ones (16 mentions)
- (5) Valid selection practices are very important to performance outcomes (15 mentions)
- (6) Personality is related to performance (11 mentions)

It is notable that, with the possible exception of the item on HR practices, items all fall within the W/O psychology domain, confirming that this may be where there is the strongest evidence base. A preliminary conclusion might be that there is limited consensus among academics about the most fundamental findings. However, while experts may arrive at different views when restricted to the five most fundamental findings, they might nevertheless agree that there is a strong evidence base for the wider range of findings identified by their colleagues. If so, this would indicate an academic consensus about the evidence. There is therefore a need for a further step in the research to determine the extent to which there is consensus among the research experts about the fundamental findings. To explore this, we replicated and extended the findings of Rynes, Giluk, and Brown.

Our study differs in two distinct ways. Firstly, we restricted our sample to senior academic W/O psychologists who are likely to have a role as ‘translators’ of academic research knowledge to students, policy makers, and practitioners. By restricting the study to the sub-discipline of W/O psychology and to senior researchers, we attempted to obtain a reasonably homogeneous sample of academic experts. By focussing on W/O psychology, we are covering the area that has provided the great majority of ‘fundamental findings’ affecting the domain of HR managers. Furthermore, building on the analysis of Briner and Rousseau (2011a), the domain of W/O psychology is of interest in its own right. Secondly, we extended the Rynes, Giluk, and Brown study by using two rounds of data collection, first identifying ‘fundamental findings’ and secondly exploring levels of consensus about these findings. A further difference is that our sample was drawn from across Europe. Finally, an aim of the research is to address the irony that to date, with the exception of the research stimulated by Rynes and her colleagues, there has been very little attempt to build an evidence base on evidence-based practice in management and W/O psychology.

Methods

The first stage closely replicated the Rynes *et al.* (2007) study. We amended their question to 'In your opinion, what are the five most fundamental findings in W/O psychology that every informed human resource manager should know?' The changes refer to 'W/O psychology' rather than 'human resources research' and narrow the management population to 'every informed human resource manager' rather than 'all practising managers' since this second category covered a potentially wide range of managers, some of whom are less likely to have knowledge of HR or W/O psychology research findings. We also removed Rynes, Giluk, and Brown's additional sentence ('Your answer need not cite specific studies - we are interested in fundamental generalisable principles') since we considered this to be redundant.

The survey was conducted through the membership of the European Network of Organizational Psychologists (ENOP), a long-established loose network of senior professors from European countries. Membership is by invitation and is linked to seniority (a full professor) and academic eminence, usually reflected in substantial publications in English language journals. ENOP has deliberately sought members from Eastern European countries as a means of supporting the development of the subject in these countries by providing contacts, opportunities for academic exchanges, and research collaborations. ENOP members have a wide spread of expertise ranging from organizational behaviour (OB) to engineering psychology and human-computer interaction. In 2011 when the data were collected, there were 23 members from 17 countries. A form of snowball technique was used whereby each member was asked to identify five senior W/O psychology academics in their own country who would respond to the question. Data were collected electronically. This resulted in 75 responses from 14 countries.¹ Each respondent provided approximately five findings. In some cases, there was less than five returns, due to non-response or because there were less than five sufficiently senior academic W/O psychologists in the country. Responses were content analysed by one author and classified first as falling within a broad topic area such as 'motivation' or 'training' and secondly as reflecting specific statements or propositions about the subject such as 'pay is a good motivator of performance at work'. The second author reviewed the responses and either confirmed or recommended adjustments to the classification and allocation of responses to a particular category. Where adjustments were recommended, these were discussed and, in most cases, agreed.

In Round 2, the most frequently cited statements in Round 1 were presented in a short questionnaire. Frequency of mention, even among this sample, is not a guarantee that there is always strong evidence to support the statement. In selecting the items, no attempt was made to provide a comprehensive coverage of W/O psychology. Items were only included if they represented clear propositions. One item, which we considered to be untrue, was included as a check on accuracy. Where possible, the items reflected quotes from the first round responses. In other cases, the Round 1 responses were paraphrased. In total there were 24 items. Five Likert-type response categories ranged from 'strongly agree that there is good evidence to support this statement', 'tend to agree that there is good evidence to support this statement' and 'uncertain about the quality of the evidence' to 'tend to disagree . . .', and 'strongly disagree that there is good evidence to support this statement'. In addition, recognizing that the range of expertise

¹ The countries participating in Round 1 were Austria, Belgium, Croatia, Estonia, Finland, France, Holland, Italy, Poland, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

can be limited, an extra response category was provided stating 'I do not know enough about this topic to provide a judgement'. The detailed items are shown in Table 2. The questionnaire was distributed electronically via the members of ENOP, including those who had not participated in the first round, and 77 from 15 countries² were returned in time for analysis. One was excluded because nearly 70% consisted of responses indicating that they did not know enough about the topic to make a judgement. Since we are dealing with a relatively small potential population, all responses to both rounds were anonymous. The only background information we have is country.

Results

Round 1

The content analysis of the results in Round 1 revealed three levels of response, reflecting different levels of detail. At the first level, and the most common form of response, there were specific propositions or assertions. These included clear statements such as 'conscientiousness predicts performance' or 'a satisfied worker is a productive worker'. Some of the statements were couched in negative terms, such as 'selection interviews do not predict performance', 'pay is a poor motivator', and 'attitudes are not strong predictors of absence from work'.

The second level of response referred to a category or subject area but did not provide a propositional statement. These included reference to areas such as 'motivation', 'competences', or 'open communication'. Another variant was to cite an area such as 'team-working and effectiveness' and then offer three references. By implication, these are broad topics where there are research findings that HR managers should know about.

The third level of response included general statements. Examples include 'the strongest determinants of behaviour are situational', 'work can be humanised', and 'there are many causes of human behaviour'. These might be widely accepted as valid statements, reflecting research findings from W/O psychology so it is plausible to argue that they are reasonable responses to the question. A sub-group of general responses endorsed the work of W/O psychologists including statements such as 'W/O psychology is highly applicable', 'W/O psychologists have a significant impact on employees' well-being', and more modestly, 'ergonomics deserves consideration'.

The bulk of the responses could be classified under specific categories. These were sometimes somewhat arbitrary and there is some overlap between them; for example, a single statement can refer to autonomy, motivation, performance, and satisfaction. Table 1 lists the most commonly cited broad topic areas.

Based on this initial analysis, it is clear that the question, as presented, was open to interpretation. Rynes *et al.* (2007) give no information about the proportion of responses that fell into the different levels of detail we have listed above. What is clear is that a limited number of broad topics dominate the list. These include selection and assessment, motivation and rewards, stress and well-being, and the employment relationship. There are some less frequently cited topics about which there was nevertheless some consensus among those who did respond including job design, goal setting, and high-performance work systems. Indeed, frequent reference to a broad topic did not indicate consensus

² The countries participating were the same as in Round 1 except that Estonia, France, and Italy dropped out and Germany, Russia, Slovenia, and Ukraine were added.

Table 1. Topic categories in the Round 1 survey

40	Selection, assessment, and personality
35	Employment relationships including psychological contract, trust, and fairness
35	Motivation and rewards
34	Stress, well-being, and health and safety
26	Leadership
17	Groups/teams
17	Job design
16	Goal setting
11	Job satisfaction and related attitudes
9	Organizational change
9	Diversity, discrimination, and disadvantage
8	High-performance/high-commitment work systems
6	Training and development
4	Communication
4	HCI/ergonomics
2	Careers
36	General comments

about what we know and there were a number of core issues, notably motivation and rewards and leadership on which there were directly contradictory statements.

In summary, the results reveal different levels of detail, a diverse range of topics and a relative neglect of some subjects such as training, careers, and human-computer interaction, even though they were the focus of the research of at least some respondents. On most but not all topics there was some consistency in the responses.

This first round is useful in identifying the topics that are spontaneously identified as providing good research evidence but, in restricting respondents to five topics, does not tell us whether they would agree with the wider range of topics identified. We therefore need to go a step further and establish the level of consensus across these. So Round 2 explores views about the evidence more systematically to establish the extent to which academic experts agree about the quality of the evidence base in W/O psychology.

Round 2

There are no agreed rules for determining what constitutes consensus. A significant difference between proportions agreeing and disagreeing with a statement can, of course, be established through statistical analysis. However, in the context of the focus on evidence-based practice, we are more concerned with a practical consensus. On an arbitrary basis, we assumed that agreement with a statement by more than 50% indicated a weak level of consensus (bearing in mind that a proportion of respondents, ranging across the items from 1 to 50%, were uncertain about the quality of the evidence) while agreement among more than 75% reflected a strong consensus. We excluded from the calculation those who said that they did not know enough about the subject to make a judgement. The results are summarized in Table 2. These reveal that 20 of the 24 statements received the endorsement of more than 50% of respondents but only seven received support from more than 75%, revealing relatively few items on which there was strong consensus.

The seven items on which there was a strong agreement are shown at the top of Table 2 starting with the statements 'Procedural justice/fairness has a positive influence

Table 2. Results from Round 2

Below are listed a number of statements that have been endorsed by some W/O psychologists within Europe. Please indicate whether you agree or disagree that there is good evidence to support these statements by checking the box for the appropriate number on the following scale:

- 1 Strongly agree that there is good evidence to support this statement
- 2 Tend to agree that there is good evidence to support this statement
- 3 Uncertain about the quality of the evidence
- 4 Tend to disagree that there is good evidence to support this statement
- 5 Strongly disagree that there is good evidence to support this statement
- 6 I do not know enough about this topic to provide a judgement

(Percentage of responses omitting those reporting 6 – ‘do not know enough about the topic’.

Numbers in column 6 are raw numbers based on $n = 76$)

	1	2	3	4	5	6
Procedural justice/fairness has a positive influence on work-related attitudes and behaviour ^a	55	42	1	1	0	4
Violation of the psychological contract has a negative impact on work-related attitudes and behaviour ^a	55	42	3	0	1	4
Participation in decisions improves commitment to the decisions ^a	60	35	5	0	0	3
A good safety climate is associated with fewer accidents/injuries	47	45	7	1	1	6
Goal-setting is a motivational technique that works	42	49	8	1	0	2
Job insecurity causes stress and reduces well-being	53	38	4	1	3	3
Perceived organizational support moderates the impact of stressors	42	43	14	1	0	2
Workplace stress is a major cause of ill health	38	36	15	8	3	4
Higher job autonomy is associated with higher well-being and performance outcomes ^a	25	49	11	7	8	0
High-performance/high-commitment HR systems are associated with higher firm performance	27	46	22	3	1	9
High self-efficacy beliefs are associated with higher motivation	26	47	21	3	3	6
Some US research findings will not transfer to Europe because of societal/cultural differences	36	36	21	4	3	9
Intrinsic motivation is generally more effective than extrinsic motivation ^a	28	41	21	9	1	4
Structured interviews are more valid than unstructured interviews	38	30	16	5	10	3
Leadership can be trained ^b	20	47	24	4	4	4
Good management can eliminate all conflict in organizations	7	7	20	23	43	6
Older workers are as productive as younger workers in most jobs	26	39	27	6	1	10
General mental ability is one of the strongest predictors of performance	39	25	16	13	7	1
Relational psychological contracts are more likely to raise motivation and commitment than transactional contracts	15	48	21	12	4	24

Table 2. Continued

	1	2	3	4	5	6
Job satisfaction is associated with higher performance	20	37	24	16	3	2
Transformational leadership is more effective than other forms of leadership	4	39	26	26	6	10
Personality predicts most important work attitudes and behaviours	7	35	28	18	12	4
Organizational culture has a larger impact on performance than structural factors	5	27	50	12	6	12
Pay is not a good motivator of performance at work	5	23	23	30	19	1

Note. Due to rounding, not all rows add up to exactly 100%

^aOne person did not respond to this item

^bTwo people did not respond to this item

on work-related attitudes and behaviour' and 'Violation of the psychological contract has a negative impact on work-related attitudes', which were both endorsed by 97% of respondents who either strongly agreed or tended to agree that there was good evidence to support them.

In contrast, there were a few items on which there was little evidence of agreement, reflected in a spread of responses. These included

- (1) Personality predicts most important work attitudes and behaviour (42% agree, 30% disagree)
- (2) Pay is not a good motivator of performance at work (28% agree, 49% disagree)
- (3) Transformational leadership is more effective than other forms of leadership (43% agree, 32% disagree)

As Table 2 shows, there were 13 items on which 20% or more indicated that they were uncertain about the quality of the evidence. This confirms that while the great majority felt able to provide a view on the quality of the evidence on most of the 24 topics, a sizeable minority were more cautious in arriving at a judgement. There was one item (Relational psychological contracts are more likely to raise motivation and commitment than transactional contracts) where 24 of the 76 respondents expressed insufficient knowledge about the topic to make a judgement. No other items came close to attracting this level of acknowledged ignorance about the topic.

There was one item that was included as a check, namely 'Good management can eliminate all conflict in organizations'. We believed this to be manifestly inaccurate and expected to get no positive responses. We were therefore somewhat disconcerted to find that 14% agreed with the statement. Further inspection revealed that a large proportion of these came from one country. There is one further item worth noting that has relevance for the whole concept of evidence-based research. Seventy-two percent agree and only 7% disagree that some US research findings will not transfer to Europe because of societal/cultural differences. This implies that until there is a strong European evidence base in support of certain findings, there will be some scepticism about the reliability and validity of results based predominantly on data from countries outside

Europe. This statement avoids the potentially equally challenging issue about how far results obtained in one European country can be generalized to other European countries.

Discussion

A strong base of high-quality research evidence, widely accepted by research experts, is just one component of evidence-based practice. However, it is an important component. The research evidence has more credibility if it is endorsed by the great majority of research experts. The aim of this study has been to explore how far we have progressed towards a point where core areas of W/O psychology research receive this kind of endorsement. The interest in evidence-based W/O psychology coincides with a concern about a growing divide between research and practice (Anderson, Herriot, & Hodgkinson, 2001). But it is also based on the hope, reflected in the work of Pfeffer and Sutton (2000) that research has progressed to the point where there are now well-established research findings. If this is the case, and the research evidence is captured in systematic reviews, meta-analyses and the like, then senior academics, who author these reviews, and who are most likely to be aware of them and use them in their teaching, writing, and work with organizations, are in the best position to comment on the validity of the propositions stemming from them.

In this context, the results of this study suggest rather limited agreement among academic experts about the evidence-based W/O psychology. Round 1 revealed a considerable diversity of response, perhaps reflecting in part the range of expertise among the respondents. While 'selection, assessment and personality' was the most frequently cited area, other traditional 'hard core' and long-established areas of W/O psychology such as training and development and ergonomics were well down the list. Instead, it was the topics within the branch of W/O psychology that in the United States would be recognized as OB that featured most prominently. These covered 'employment relationships including the psychological contract, trust and fairness', 'motivation and rewards', 'stress, wellbeing, health and safety', and 'leadership'. This may tell us something about the buoyant areas of contemporary research in the field. They also represent an interesting contrast with the topics identified in the study by Rynes *et al.* (2007) where selection and psychometrics featured strongly.

The contrast extended to Round 2 where the seven items on which there was a high consensus fall within the OB domain and the only item overlapping with Rynes, Giluk, and Brown's list concerns goal setting. Furthermore, the items concern employee well-being rather than organizational performance. It is possible that this concern for employee outcomes reflects a less managerial perspective on the role of W/O psychology in Europe compared to the United States. Nevertheless, the finding of a strong consensus on only seven of the 24 items suggests that we have some way to go to establish a strong research evidence base with academic consensus about the consistency of the findings.

The moderate overall levels of consensus across the field of W/O psychology raise a number of questions about the kind of research that we do. There is an understandable desire to extend the body of knowledge by elaborating or challenging the existing theory and knowledge base; indeed, this is a key to progress in science. At the same time, a number of journals discourage submission of replications that might allow us to become more confident about the existing evidence. So it takes a determined but necessary, long-term programme of research to accumulate a convincing body of knowledge. This requirement is made more challenging by the growing demand to base evidence on

longitudinal research. Set against this, there is a balance to be struck between the type of long-term, programmatic research that builds convincing theory and evidence, and research that responds to the contemporary demands of practitioners and policy makers on topics where the evidence base is lacking. It was this concern that led Anderson *et al.* (2001) to advocate what they termed 'pragmatic science', which they define as both practically relevant and methodologically rigorous, as a basis for determining research priorities in W/O psychology.

Some respondents complained about the lack of scope for contingency. The understandable comment was that in many cases, the appropriate response is 'maybe, but it all depends'. Another concern was to differentiate statements about an association from those that claim cause and effect, the implication being that it was far easier to endorse the former. It is perhaps inevitable, particularly when trying to develop reasonably succinct items based on statements provided by a number of respondents in the first open round, that it will be impossible to satisfy all concerns. In retrospect, there is no doubt that some items could have been more clearly worded or could have included qualifications. Future research might attempt to address some of the contingencies. At the same time, we endorse the comment of Briner and Rousseau (2011b) that 'Bodies of research evidence can be complex, highly context dependent and inconclusive' (p. 77).

One of the implications of these results is that we need to establish a stronger evidence base of European research in a number of areas of W/O psychology. While endorsement of a general statement about the non-transferability of some US research to Europe does not reflect a concern about all US research, it does reflect some unease and it is notable that only 7% disagreed with this statement. It would be useful if further investigation could shed more light on those topics that W/O psychologists believe do not transfer. There are some hints in the results presented here, reflecting perhaps the more pluralist traditions and the different institutional arrangements (Paauwe, 2004) in Europe with the associated tendency to take more fully into account the concerns of the social partners.

An implicit assumption underpinning this exploration of the level of consensus about the research evidence in W/O psychology is that strong evidence provides a basis for recommending policy and practice. The experience in medicine offers a salutary lesson. Despite overwhelmingly endorsed recommendations about appropriate treatments, the evidence can still get ignored (see, e.g., Bogdan-Lovis & Sousa, 2006). The problem is likely to be considerably greater for policy and practice in organizational settings where, unlike medicine, far fewer practitioners are fully trained and sensitized to the importance of the evidence to support their actions and where complex contingent factors provide reasons to ignore the evidence. As Rynes *et al.* (2007) have shown, there is a major problem of communication with managers, since very few read academic journals, and other media often fail to present the evidence or, instead, permit special interests to present prescriptions for practice that contradict the evidence. It is in this context that we have argued that academics have a key role because they are the most likely to be aware of, and understand the evidence and to act as 'translators' to a variety of audiences. Given the lack of credible alternatives, we might hope that academics can become more active in this translational role. It also follows that in teaching future generations of W/O psychologists, as well as managers (Rousseau & McCarthy, 2007), we need to sensitize them to the importance of undertaking and giving weight to systematic reviews of research evidence, particularly research in organizational settings. We may also wish to learn from the research in medicine suggesting that the impact of such evidence is greater when communicated in the context of clinically integrated teaching rather than in a stand-alone classroom context (Coomarasamy & Khan, 2004).

It may be more realistic to hope that policy makers and practitioners can at least become more 'evidence-informed' (Rousseau & Barends, 2011). In the rich range of responses to the paper by Briner and Rousseau, (for a summary of these, see Briner & Rousseau, 2011b) among the points highlighted were the importance of power and emotion. The emotions - and prejudices - of those in positions of power are often likely to weigh more heavily in decisions than the research evidence. As noted by Hodgkinson (2011), despite claims about rational decision making, many decisions do not rely on evidence but reflect the feelings, the biases, the intuitions, and the susceptibilities of managers and others to fads and fashions, to short-term pressures, and to the need to provide a 'solution' even if none is readily apparent. An evidence-informed approach would also meet the concerns of critics such as Morrell (2008) who worry about scientific knowledge having primacy over judgement and even over ethical concerns.

Limitations

This research has a number of limitations. The sample of academic experts is drawn from a restricted base and is modest in size. Using a form of snowball technique to recruit respondents, despite providing guidelines, risks a loss of control over the sample and therefore the research expertise of some of the respondents. Future research should seek a more extensive and perhaps more carefully selected sample. On the one hand, the sample is homogeneous because it is restricted to W/O psychologists and this may increase the similarity of the response. On the other hand, it is drawn from a range of countries across Europe and this increases its heterogeneity. While we might recommend a more nationally restricted sample, it is unlikely that a single European country has a sufficient number of senior researchers in W/O psychology.

It was clear from the responses that there were varied perceptions of what was expected from the single question in Round 1. As a result, while a majority provided propositional statements, as we had intended, others offered different kinds of response. This limited the case for presenting a count of respondents citing specific propositions as opposed to counting the broad topics covered by the responses. Future research might provide more guidance about the type of response expected. The Round 2 statements were drawn largely from the more frequently cited propositions mentioned in Round 1. This inevitably restricts the range. An alternative might have been to follow Rynes *et al.* (2002) and draw on the literature; but as they revealed, this in turn poses a different set of risks. Our definition of consensus was inevitably arbitrary and future research might consider different definitions. Most statements did not allow for qualifications and contingencies and future research would benefit by building in scope to accommodate these complexities. Finally, the response categories in Round 2, seeking agreement or disagreement 'that there is good evidence to support this statement' may conflate quantity, quality, and consistency of evidence and it would be helpful in future research either to separate these out or clarify which to focus on. Despite these limitations, we believe this study does contribute to the evidence about evidence-based research and, by implication, evidence-based practice in the field of W/O psychology.

Conclusion

There has been an increasing amount of writing and advocacy about evidence-based practice but limited research on the subject. This study has sought to extend our knowledge about academic expert perceptions of the research evidence base in W/O

psychology. It reveals that there are a number of topics within W/O psychology on which there is a strong consensus among this sample of research experts about the quality of the evidence-base. Each has clear implications for policy and practice in work settings. However there were considerably more statements for which there was less clear-cut support or even disagreement. If we compare the progress of the evidence base in W/O psychology against medicine, where the idea of evidence-based practice originated, we are likely to be disappointed. We have neither the resources, the critical mass of researchers, nor the access to research settings and samples that medical researchers enjoy. On the other hand, when compared with the general field of management research, W/O psychology emerges as a sub-discipline that has made encouraging progress in seeking to establish a strong evidence base. In their polemical article, Briner and Rousseau (2011a) used the title 'Evidence-Based I-O Psychology: Not There Yet'. If we take account of the constraints and complexities of organizational life, it is doubtful if we will ever get 'there'. However using our evidence base of academic experts from across Europe, there are some grounds for optimism. While we endorse their sentiment, we might wish to slightly re-phrase their title for our conclusion - 'Evidence-based W/O psychology: making progress, but not there yet'.

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