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## Psychological Ownership

If people work harder and smarter for businesses they own themselves, and the common advice to work as hard as you would if you owned the business suggests that they do, what would this mean when the businesses are owned by the state? On the one hand, we might expect people to work harder and more effectively for a state-owned firm because the state, in either a communist society or a democracy, is in some sense owned by the people. On the other, state-owned firms are owned by a lot of people, and each individual's stake is very small, so we might expect that, in comparison with a small business owner, a self-employed plumber or hairdresser, for example, people would work less hard. But what about in comparison with working for a relatively large privately owned enterprise?

In short, it is not obvious what the consequences of state ownership will be for how hard people work. Indeed, thinking about it may turn up more questions than answers. Such questions include: Do people really work harder or smarter if they own or have a stake in the business? Does it matter what kind of work they are doing? What does it mean to have stake in the business? Does it mean that you are legally an owner or part-owner? Does it mean that you share in the profits? Does it mean that you

have some say in the strategy adopted by the business? Does it mean that you have some control over the work that you yourself do? These questions are all part of what is sometimes called psychological ownership.

The first four sections of this chapter review some of the relevant psychology. First, we look briefly at the idea of personal responsibility, which is closely related to psychological ownership. Second, we consider what psychological ownership is. Third, we investigate how psychological ownership develops and what tends to increase or decrease it. Fourth, what are the effects of psychological ownership? There has been research on each of these topics, and we consider both theories and empirical research.<sup>1</sup> However, it is probably also fair to point out that many of the research conclusions should be regarded as quite tentative. Following this review of the psychology, we take a different tack and consider the very practical question of how farm ownership affects productivity. Finally, we consider how communism did or might reduce or encourage psychological ownership.

## Responsibility

Psychological ownership has sometimes been defined in terms of personal responsibility: If you own something, you are responsible for it. In the workplace, you own a particular problem or concern if you feel responsible for solving or dealing with it.<sup>2</sup> Although this chapter will mainly make use of another way of thinking about psychological ownership, some aspects of our understanding of responsibility relate to the operation of communism, and are worth considering.

In 1964, it was reported that, when Kitty Genovese was raped and murdered in New York, 38 neighbours witnessed the event and did not intervene. Although subsequent investigation showed that there were many fewer witnesses than 38, none of whom had seen very much, and that one of them had in fact called the police, the urban myth of this event gave rise to subsequent research on what is known as the bystander effect. The basic idea, for which a good deal of experimental evidence

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<sup>1</sup> Pierce and Jussila. *Psychological ownership*.

<sup>2</sup> Parker et al. (1997).

was discovered, was that if an event that calls for some intervention is witnessed by a number of people the responsibility for intervention by any one of them is reduced: the greater the number of people, the greater the diffusion of responsibility. In some circumstances at least, someone in need is less likely to be helped if there are a number of witnesses than if there is only one or two.<sup>3</sup>

There is also a broader idea that responsibility for any kind of action, not just helping or intervening, might be diffused if other people are involved. For example, there is some evidence that the amount each diner pays towards a restaurant tip decreases with the size of the party. It is often remarked that clients in psychotherapy and counselling situations are reluctant to take responsibility for their own lives, and the technique of motivational interviewing is one example of a technique that is now often used to get them to take this responsibility.<sup>4</sup>

One aspect of the diffusion of responsibility in work situations is that, where many individuals have some say in what goes on, there is a greater likelihood of buck-passing. When people act collectively, they tend to take less responsibility when things go wrong. Responsibility for collective decisions often diffuses as the group size grows larger. In areas where it is not clear who in a group is responsible for what—for example, who is responsible for the learning of a school pupil, the teacher or the pupil?—there may be not only diffusion of responsibility but also genuine uncertainty.<sup>5</sup>

As with the example of teachers and pupils, diffusion of responsibility can occur where the different people are at different levels of a hierarchy, and the problem of promoting the appropriate degree of felt responsibility at different levels of an organisational structure is a well-known problem in organisational psychology. Indeed, it is often claimed that bureaucratic organisations, such as proliferated in communist countries, are particularly liable to this problem. Solutions have been put forward. Many come down to clearly defining different responsibilities at different levels of the structure.<sup>6</sup>

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<sup>3</sup> Darley and Latane (1968).

<sup>4</sup> Freeman et al. (1975); Miller and Rollnick, *Motivational interviewing*.

<sup>5</sup> Bacon (1993), Clifford and Sherman (1975), Edling and Frelin (2013), Forsyth et al. (2002).

<sup>6</sup> Baum (1991), Fuller et al. (2006), Thompson (2014).

## Legal and Psychological Ownership

Legal ownership can be defined in different ways. One such definition is “a bundle of rights relating to control over, information pertaining to, and a financial stake in the target of ownership.”<sup>7</sup> It is not a straightforward concept. For example, in many jurisdictions people do not own land, but instead title to land which conveys certain rights (and obligations). Ownership may be individual or collective. Companies are often owned collectively by their shareholders. Workers for a company may be entitled to a share of legal ownership of the company because the workers are allocated shares in the company. When worker representatives are entitled to a say in the direction of a company, as happens, for example, in Germany under the Codetermination (*Mitbestimmung*) Laws, one could also say that there is a sense in which workers are legal part-owners of the company. For many positions in Western countries, a manager cannot simply dismiss a worker for no reason. The worker has certain employment rights and thus can be said in a legal (as well as a psychological) sense to have some ownership of a particular position.

If legal ownership is not a completely straightforward concept, psychological ownership is even less so, and a number of different definitions have been proposed. For example, Ernest Beaglehole (1906–1965) defined personal property as what people are willing to fight for. It is easy to apply a similar definition to psychological ownership.<sup>8</sup> Another approach is to define psychological ownership, particularly in a work situation, in terms of the responsibility that people feel. On the other hand, one can argue that the responsibility one feels arises from one’s sense of ownership and is not psychological ownership itself. Hence, Jon Pierce and Iiro Jussila define psychological ownership as “based on feelings of possessiveness and of being psychologically tied to an object.”<sup>9</sup> Psychological ownership is distinguished in this definition from felt responsibility, and in the work situation from job satisfaction and job involvement. Scale questions that might be used to measure psychological ownership in the workplace

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<sup>7</sup> Pierce and Jussila, *Psychological ownership*, p. 1.

<sup>8</sup> Beaglehole, *Property*.

<sup>9</sup> Pierce and Jussila, *Psychological ownership*, p. 19.

include “I sense that this job is MINE” and “I feel a very high degree of personal ownership for the work that I do.”<sup>10</sup>

If possessiveness is defined in terms of feelings and psychological ties, it relates easily to the idea of the extended self. Russell Belk’s account of the extended self has become widely recognised in psychology and consumer research. The idea is that we perceive our possessions as part of ourselves in a similar way that we think of parts of our body. There is considerable evidence that this is so. Similar language is used: I might speak of my car and my leg. People who suffer burglaries are often affected by these in the same way as by a physical violation. People who lose possessions may suffer trauma. People may see themselves a little differently if, for example, they are smartly rather than casually dressed or driving a sports car rather than an old, battered sedan.

There are practical ways in which the self can be extended. Tools give us a greater ability to manipulate the environment. Some possessions—photographs are the most obvious example—serve as aids to memory, and inherited paintings or objects may help us to remember the deceased. Belk follows Jean-Paul Sartre in suggesting that possessions can become incorporated into our extended selves by our controlling them, by our creating them, or simply by our coming to know them. Of course, some possessions are more central to our sense of self than others, but some possessions may be used as a means of identity. For example, it might be important for someone to think he is well dressed or that he is a stamp collector.<sup>11</sup>

Normally when we think of possessions we tend to think of material objects, but, as Belk points out, very similar considerations apply to activities. People may identify themselves in terms of the sports they pursue, and it is very common for people to identify themselves by their occupations. The work we do may, in fact, be the most obvious example of the extended self in activities. Indeed, this is a point made by Marx himself. One complaint that he has about the use of machinery is that it makes work uninteresting and it is difficult for the worker to identify with any finished product. In Marx’s account, however, this is a consequence

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<sup>10</sup> Brown et al. (2014), p. 332.

<sup>11</sup> Belk (1988).

of the capitalist use of machinery and the factory process rather than the machine process itself.<sup>12</sup>

Many animals defend territory; children can often be extremely jealous of possessions (*I am playing with this toy!*); wars may be fought over small scraps of territory. The sheer number of these different examples has sometimes suggested that there might be a general acquisition instinct, perhaps even a hoarding instinct. However, as Beaglehole was perhaps the first to point out, when one comes to examine the different examples, one finds large differences between them. A child may be completely focussed on a toy she is playing with; wars over territory are more likely to be matters of national pride. Most present-day theorists do not assume a single underlying instinct and instead follow Beaglehole in pointing to a number of somewhat different needs that might be satisfied by psychological ownership. For example, Pierce and Jussila suggest people might have feelings of ownership because some object or activity might help gain control over the environment; out of a need for self-identity; a need for home; or a need for stimulation.<sup>13</sup>

Psychological ownership is not necessarily exclusive, and it may be that psychological ownership is less likely to be exclusive than legal ownership. We may think of an object, an occupation, or an activity as “mine,” but often these can be “ours.” So for example, I might describe the university I work for as “my university” or as “our university.” Nor, if I say “my university,” am I trying to imply that it is mine exclusively.<sup>14</sup>

To a large extent whether psychological ownership is individual or collective depends on the object being owned. No one today is likely to think of “my country” as meaning that the nation is my personal property (although Louis XIV in seventeenth-century France might have disagreed). Nor will many people claim collective ownership of “my sandwich” when I have already eaten half of it. However, different people may be more or less inclined to favour individual rather than collective ownership, and it is also likely that different cultures may be more

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<sup>12</sup> Marx, *Capital*, Vol. 1, pp. 343–361, 421–422.

<sup>13</sup> Beaglehole, *Property*; Pierce and Jussila, *Psychological ownership*, pp. 38–49. It is no coincidence that these needs have a good deal of overlap with the different ways of extending the self suggested by Belk.

<sup>14</sup> For example, Pierce and Jussila, *Psychological ownership*, pp. 53–54.

likely to approve individual over collective ownership or vice versa. Geert Hofstede and his associates have produced a good deal of evidence that different cultures may be more or less inclined to favour individualist or collectivist values, and these can easily be extended to cover psychological ownership.<sup>15</sup>

## Development of Psychological Ownership

It is not clear how adults come to acquire feelings of ownership for different targets but the phenomenon of the endowment effect suggests that they are quite easy to trigger. The endowment effect shows that people value property more highly when it is in some sense theirs. An early study of the effect asked groups of students to value Cornell University coffee mugs. Some students were given coffee mugs, and others were given money. These groups were then allowed to trade. The key findings were, firstly, that there was very little trade and, secondly, that the median minimum price at which those who received them were prepared to sell was \$5.25 while the median buyer was willing to pay no more than \$2.25–\$2.75. This gap between the average or median minimum price the sellers are willing to accept and the maximum price the buyers are willing to pay for the same objects is a measure of the endowment effect, and is often thought to be a kind of value imparted to an object, in this case a coffee mug, simply by the fact of ownership.<sup>16</sup>

There has been a good deal of research on the endowment effect. The size of the effect varies across a range of different experimental conditions, but there is no doubt that it is frequently found, and not only in laboratory conditions.<sup>17</sup> The coffee mug experiment may be unusual in that it featured an object which probably had little initial value to any of the participants. Even the median minimum selling price was less than the store price (\$6.00). The authors did not ask whether any student actually owned one of the mugs already, but I would expect the number to have

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<sup>15</sup> Hofstede et al., *Cultures and organisations*; Pierce and Jussila, *Psychological ownership*, Chap. 11.

<sup>16</sup> Kahneman et al. (1990).

<sup>17</sup> For example, Sayman and Öncüler (2005).

been very small: For some years, when I have described this experiment to an undergraduate class in judgement and decision-making, I have asked whether in fact anyone present owns a coffee mug with our university's logo on it. No one has yet said "yes."

If the endowment effect is related to psychological ownership, it suggests that psychological ownership can be triggered quickly and easily and with regard to objects that are not particularly desirable. However, it is not clear how closely related the endowment effect is to psychological ownership. Also, even granted a relationship, there is a good deal of difference between psychological ownership of a coffee mug and the psychological ownership of a job, and it is psychological ownership of jobs which is the main focus of both this chapter and most of the existing research and theory in psychological ownership.

Pierce and Jussila claim that there are three important routes to psychological ownership. Firstly, it arises from the ability to control the target. So, to take a trivial example, if you can use a particular frying pan and other people can only use it with your permission, there is an important sense in which the pan is yours, even if someone else is the formal owner. In the occupational setting, psychological ownership of a position should be enhanced if the worker has control over what she or he does in that position. Secondly, psychological ownership comes from intimate knowledge of the target. So, for example, someone who spends a good deal of time in the garden seeing what plants come up, when flowers bloom, and weeding from time to time will more readily think of it as "my garden" than someone who scarcely notices it. In the job situation, we are more likely to think of a job as ours as we come to know the detail of what is involved in doing it. Thirdly, ownership comes from investing yourself in the target. If you work in a committed way at some task you are more likely to own it. Labour is itself an investment, and Pierce and Jussila credit Marx for early recognition of this.<sup>18</sup> Questions or statements that can be used to elicit the strengths of the three different routes include "To what extent do you set your own work deadlines?" (control), "I have a comprehensive understanding of the work I am asked to do" (knowledge), and "I have invested many of my ideas into this

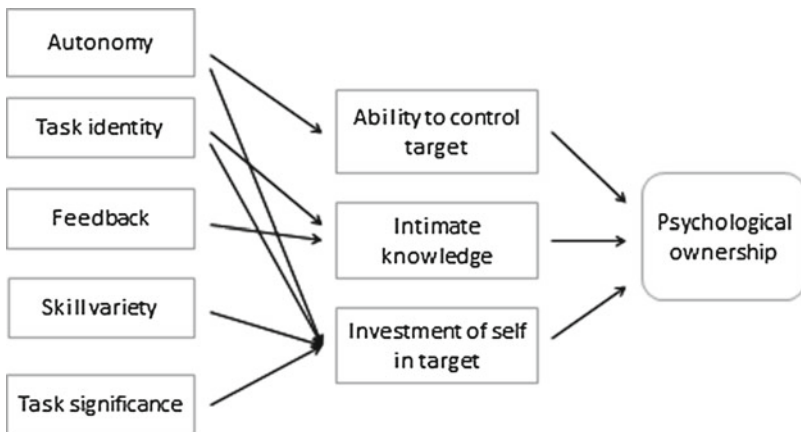
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<sup>18</sup> Pierce and Jussila, *Psychological ownership*, Chap. 5.



job” (investment).<sup>19</sup> Note, incidentally, that control and investment, in particular, have obvious links to how responsible someone might feel.

The three routes to psychological ownership are not independent of one another, and they correlate with each other as well as with psychological ownership. For example, if you invest yourself heavily in a target then you are more likely to come to know it well.<sup>20</sup> One can also go on to consider how different aspects of an organisation might enhance or reduce psychological ownership in its workers. Pierce and Jussila consider five core aspects of a job—skill variety, task identity, task significance, autonomy, and feedback—and how each of these influences the three routes to psychological ownership (see Fig. 8.1). In brief, they claim, control is enhanced by greater autonomy; intimate knowing by greater task identity and clearer feedback; and investment of self by greater skill variety, better defined task identity, greater significance of the task, and greater autonomy.<sup>21</sup> Job complexity, which relates to greater skill variety, also affects all three routes.<sup>22</sup>



**Fig. 8.1** Scheme of Pierce and Jussila’s paths to psychological ownership

<sup>19</sup> Brown et al. (2014), p. 332.

<sup>20</sup> Brown et al. (2014).

<sup>21</sup> Pierce and Jussila, *Psychological ownership*, pp. 133–137.

<sup>22</sup> Brown et al. (2014).

The nature of the organisation is important. More bureaucratic organisations tend to reduce psychological ownership, while more “organically” designed organisations will encourage it. The decision and other processes used within the organisation are critical. Decentralised information flow, more frequent and richer information, and easy access to the information all produce greater knowledge of the work and the organisation and so promote greater psychological ownership. If the employees are more involved in the organisation and have more control over what they do then they are likely to acquire greater ownership. It is possible that people acquire more psychological ownership when coordination takes place by feedback rather than by sticking to a pre-arranged programme. Decision making by the participants encourages psychological ownership while leader initiatives tend to reduce it. It is also possible that, where the job requires the use of new technology, psychological ownership will be increased because the workers using the technology must engage with it to understand their tasks.<sup>23</sup>

Much of the research has focussed on two different organisational ways in which employees might acquire more psychological ownership. One way is governance control, in which employees have a voice in the strategic direction of the organisation. In governance control, some employees are elected (or appointed by unions) to seats on the organisation’s board. In Germany, for example, under the Codetermination Laws, companies with more than 1500 employees must allocate a large minority of the board places to employees. If the organisation is a company with shareholders, this voice may or may not be accompanied by shares in the organisation. A number of researchers have investigated what difference having worker participation in governance makes to the overall performance of the organisation. Some researchers have found that profitability is reduced in such firms; others have reported beneficial effects, including better long-term viability of the firms. Thus, the results are mixed, perhaps most fairly summed up by saying that the direction of the firms may be oriented towards slightly different measures of success.<sup>24</sup>

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<sup>23</sup> Pierce and Jussila, *Psychological ownership*, pp. 137–152.

<sup>24</sup> Dow, *Governing the firm*; Dow and Putterman (1999), Fitzroy and Kraft (2005); Hansmann, *Ownership of enterprise*, Smith (1991).

A related question is whether workers who have shares in the firm also feel greater psychological ownership of it. One study of employees of a US firm examined the level of share ownership in the firm (some workers held shares in the company they worked for as part of their retirement plan portfolio) and the survey response of the employees on a range of different measures. The results showed that psychological ownership (measured using a seven-item scale) had a small positive correlation ( $r = .10$ ) with share ownership and larger correlations with the control that the employees perceived they had in the workplace ( $r = .49$ ) and the amount of information that they believed they had access to ( $r = .47$ ). These results support many different interpretations. For example, maybe the committed workers buy more shares. Psychological variables usually correlate better with other psychological variables (such as perceived control) than with objectively measured variables (such as actual share ownership). Nevertheless, the results suggest that psychological ownership is increased by having some formal ownership of the firm, although the effect is not large, and may be less powerful than the effect of the workplace itself.<sup>25</sup>

The other way in which organisations might enhance psychological ownership is by allowing their employees to exercise more operational control. That is, the employees have greater control over how they work. There is reasonable evidence that learning new technology does produce greater feelings of control. Workers in positions where they have more autonomy also tend to have greater psychological ownership, and, where there is self-management and participatory decision-making, psychological ownership and feelings of responsibility are increased. Interestingly at least one study suggests that the effects of governance and operational control may operate

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<sup>25</sup>Dunford et al. (2009); Pierce and Jussila, *Psychological ownership*, pp. 172–175. Correlation coefficients are used to measure the strength of a relationship between two variables. There are different types of correlation coefficients, but the most common, and the only one used in this book, is the Pearson correlation coefficient, often written simply as  $r$ . Pearson correlations can range from  $-1$  through  $0$  to  $+1$ . A positive  $r$  means that the two variables increase together, a negative  $r$  that as one variable increases the other decreases. A value of  $0$  means that the two variables are completely unrelated; values of  $-1$  or  $+1$  indicate perfect relationships. The bigger the number ( $+$  or  $-$ ), the stronger the relationship. In psychology and the social sciences correlations of  $1$  or  $-1$  are very rare, as this would imply that the variables relate *only* to each other and not to any other variables.  $r = 0.10$  indicates a weak relationship;  $r = .49$  on the other hand indicates quite a strong relationship in social science.

independently of one another, which is what one might expect given the different paths that one can take to psychological ownership.<sup>26</sup>

## Consequences of Psychological Ownership

Organisations would have little interest in fostering psychological ownership if there was no pay off to them. This section considers the benefits (and drawbacks!) of increasing psychological ownership.

Obvious expectations are that employees, who feel more psychological ownership, will also be more satisfied with their jobs, suffer from less alienation, express more commitment to the workplace and motivation to do their jobs, feel more responsibility for what they do, and be less likely to look for positions elsewhere. By and large the research evidence confirms all these expectations, and moderate to high correlations ( $r = .3-.7$ ) have been obtained for these kinds of measures.<sup>27</sup>

Psychological ownership should affect work performance positively. One reason to expect this is that people who have greater psychological ownership of an organisation are likely to have greater intrinsic motivation to work hard. However, the extent to which psychological ownership improves work performance probably depends on the actual work to be done. If that work depends crucially on the individual's intrinsic motivation, there will be a greater effect. The effects of psychological ownership may also be stronger on activities which are not part of the "normal" job (citizenship performance) than the more usual (in-role performance) aspects of it. For example, psychological ownership may be more important for someone who is training a fellow employee to do an unusual accounting task than for her own performance on a routine accounting task. A key point to recall here is that psychological ownership is related to considering oneself responsible for the organisation. The data that have been collected to date indicate that both in-role and citizenship performance are higher for people who feel more psychological ownership of their employing organisations, although as a rule the size of the effects is not large.<sup>28</sup>

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<sup>26</sup> Pierce and Jussila, *Psychological ownership*, pp. 175–182. Fraser and Kemp (2012).

<sup>27</sup> Pierce and Jussila, *Psychological ownership*, Chap. 6, pp. 184–190.

<sup>28</sup> Pierce and Jussila, *Psychological ownership*, Chaps. 6 and 9.

Some negative consequences might also be expected. It is possible that psychological ownership could lead to territorial behaviour, so that, for example, a more experienced worker might be less willing to share her organisational knowledge with a newcomer and to hoard information rather than share it, although results to date indicate that this usually does not happen.<sup>29</sup> It has also been suggested that psychological ownership might produce greater escalation of commitment. Escalation of commitment is believed to be common in organisations. As an example, consider a firm that sells women's clothing and is thinking of branching out into children's clothing. Estimates are made of the probable success of the venture and a decision is made to open a children's store. However, as often happens, the venture runs into early problems. The firm persists; the problems continue; the new venture loses a good deal of money. Some executives at the firm argue that to pull out now would be to throw away the money and effort that has already been put into the venture—this is known as sunk costs reasoning—and that the venture requires more money to succeed, in other words an escalation of commitment.<sup>30</sup>

Escalation of commitment can occur with individuals as well as organisations, and you can probably think of at least one example of this from your own past life. However, most of the research attention has been on organisational escalation, partly because there is normally social pressure on individuals within an organisation to maintain their commitment to a course of action they have chosen or been a key participant in choosing. To change your mind and advocate pulling out is a public admission that you have previously made a mistake and gives rise to the suspicion that you did not own your previous decision and lack commitment and determination.

Knowledge of escalation of commitment and the related sunk costs fallacy is now reasonably widespread in management circles and a number of measures are taken to stop it from happening. For example, many organisations consciously discount sunk costs. Before the project gets underway, the organisation may decide to review its performance at particular fixed future times to determine whether things are going according to plan. Cost-plus contracts are avoided. Some measures are aimed at reducing

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<sup>29</sup> Ibid.

<sup>30</sup> Staw (1976, 1981).

the extent to which the people who initiate the project can escalate their commitment to it. Most simply, different decision-makers may be used at different stages of the project. Of course, using different decision-makers will tend to reduce their psychological ownership of the project.<sup>31</sup>

In practice, determining whether you are wrongly escalating your commitment is not simple. It is easy to look back on specific past examples, such as the Anglo-French decision to continue building the supersonic airliner, Concorde, or the American decision to escalate the Vietnam War, and see these as mistakes. On the other hand, not all decisions to persist in the face of early setback turn out badly, and we often admire people who do show persistence. Christopher Columbus's persistence in believing that Asia could be reached from Europe by sailing west is often admired as heroic determination, despite the fact that he was completely wrong. Research into escalation of commitment shows not only that real, mistaken escalation of commitment does take place but also instances where organisations give up too quickly. For example, one study of oil exploration companies showed them as too eager to abandon apparently unsuccessful wells.<sup>32</sup>

Although the results indicate that psychological ownership has mostly beneficial effects, the research is not completely compelling. In the first place, many of the studies have relied on a single questionnaire to measure the different variables. This method gives rise to well-known difficulties in interpreting causal direction. For example, do employees feel more job satisfaction because they have stronger feelings of psychological ownership or do they acquire more job satisfaction because they have stronger psychological ownership?

Secondly, employees differ in how much psychological ownership they may feel or express. To what extent does this reflect differences in the type of people they are and to what extent does this reflect differences in the organisations or departments of organisations that they work for? In most studies it is quite difficult to tell these sources of difference apart. Although researchers are well aware of this problem, and make some effort to collect results from more than one organisation, often research

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<sup>31</sup> For example, Singer (1999).

<sup>32</sup> Garland et al. (1990).

has been done on different organisations from the same type of industry. For example, one study looked at different construction companies.<sup>33</sup> This concentration has the advantage of reducing the variability in job satisfaction or self-esteem or psychological ownership that comes from simply working in different industries, but it has the disadvantage that construction companies are likely to be organised in rather similar ways because that is the way things are normally done in that industry.

Thirdly, there is a big question of how seriously attitudinal measures such as job satisfaction or organisationally based self-esteem should be taken. Although most employers and societies would like to think that their employees enjoy the experience of working, people's actual performance in the work place is often more important. The difficulty here is that good objective measures of performance are often hard to come by, and the extent to which they are achievable varies greatly from industry to industry.

Finally, there is an issue of relative importance. Overall, the results do indicate that, other things being equal, an organisation or employer should strive to encourage stronger feelings of ownership in their employees. But how hard should they strive? If, for example, stronger feelings of psychological ownership are bought at the expense of inflexibility in the work place, is it worth it? The research done to date simply does not give good answers to this kind of question, but it is such answers which are most useful.

## The Effect of Farm Ownership on Productivity

Although the research done to date on psychological ownership indicates that psychological ownership is good for people and good, although perhaps not enormously good, for productivity, we do not yet know all the answers, and are unlikely to do so for some time. In this section, we examine the much more behavioural issue of whether one kind of business owned and worked by individuals or families is more efficient than larger businesses with some kind of corporate structure. We focus on farms.

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<sup>33</sup>Pierce and Jussila, *Psychological ownership*, p. 187.

An important underlying question here is whether the effect, if any, of individual ownership, whether legal or psychological, is strong enough to counterbalance the fact that certain industries, at least at present, can really only be carried out by large organisations. Not since the time of the Wright brothers has any individual or family designed, constructed, and operated their own aircraft. Present-day air travel needs a large and complex organisation to design and build the aircraft, other organisations to build and maintain the airports which it needs to operate from, and still other organisations to maintain and operate flights with large numbers of passengers.<sup>34</sup> Most present-day manufacturing requires organisational structure, and often elaborate organisational structure.

One reason for looking at whether farm ownership matters is because working on a farm, unlike manufacturing modern large aircraft, does not usually require a large organisation. Throughout the world owner-operator farms continue to exist, and the owner-operators are not all poverty-stricken peasants. A second reason for looking at the agricultural industry is that, as was pointed out in Chap. 4, it seems to have been often been an area of failure for earlier communist governments, and seen by those governments themselves as an area of failure.

Economies of scale are not always important in agriculture. When Stalin initiated the brutal collectivisation of Soviet agriculture, he appears to have done so with the genuine belief that in the long run the larger units would prove more productive. As we have seen, this increase in productivity did not happen. In part, this is because agriculture does not always benefit from concentrated large-scale production.

As a single example of how agricultural production can run into natural limits to economies of scale, I take dairy farming in New Zealand. By way of background, milk-based exports are often the largest single category of exports from New Zealand, and the exports are sold without subsidy on a competitive world market. So the industry as a whole is quite efficient. The industry is also a little unusual, in comparison with many dairy operations in the northern hemisphere, in that the dairy cows live outside on fields all year, mostly eating grass. They are not housed

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<sup>34</sup> Of course, some individuals do own and fly their own jet aircraft, but they do not build or service them.



in barns, and when the cows are milked they simply walk from their field to the milking plant. The basic unit of production is the herd. In 2014–2015, there were 11,970 herds in New Zealand and the average size of a herd was 419 cows. The trend over the past 20–30 years has been for herd sizes to increase. Because dairying has been a relatively profitable means of land use in New Zealand in recent years, the total number of dairy cows has increased, even though the number of herds has fallen slightly. The effective size of the herd is limited by the size of the milking plant and by how far the cows can walk to be milked. These limits are somewhat flexible. For example, how far the cows can walk to be milked depends on whether they are milked twice a day, as is traditional, or only once a day, how the raceways are designed, and how close to the exact centre of the fields the milking plant can be placed. (The raceways are lanes linking the fields to the milking plant). Nonetheless, the important point is that there are real limits, and an organisation that owns a large number of cows—such firms do exist—runs them as separate herds, each with its own milking plant. Because in most farms milking the cows consumes around a half of all the (human) working time, each milking plant will have its own personnel. It is unsurprising then, given the natural limit, to find that the usual size of a dairy farm is a single herd, and that there are very few herds containing over 1000 cows. Traditionally, a dairy farm is owned and operated by one husband-and-wife team, but there may also be an extra worker or two, often a sharemilker. (More is said about sharemilkers below.) To summarise, simply increasing the size of dairy farms arbitrarily does not increase their efficiency.<sup>35</sup>

The collapse of European communism in 1989–1991 was followed by a common belief that collective farms were naturally inefficient, and plans to reform the farming sector often focussed on reducing collective farms to smaller owner-operator units. The policies of the World Bank, for example, included supporting a change in ownership structure as well as other help.<sup>36</sup> As a result, in many former communist countries

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<sup>35</sup>The Dairy NZ website (<http://www.dairynz.co.nz/>) houses much technical information. Useful publications include the *New Zealand Dairy Statistics* series published annually and available online, from the latest (2014–2015) of which the numbers in this paragraph are taken. See also Taylor et al. *Smarter not harder*.

<sup>36</sup>Csaki and Tuck, *Rural development strategy*.

there are now many small privately owned farms, although collective farms also exist.

Since these changes, there has been a general increase in rural productivity. Moreover, some studies have shown that where collective and small private farms have co-existed, the small private farms have done better. For example, this has been shown for Moldova (a former part of the USSR that is now independent) for the period 1990–2003, and for Hungary, where privatisation had already begun before the end of communism.<sup>37</sup> On the other hand, there are instances where collective farms too have improved their productivity. The larger collective farms appear to be more efficient for some agricultural products, such as crops, but not as efficient for others. It is likely that, as for the example of New Zealand dairy farms, reasonable economies of scale are attainable up to a certain point, which will differ from product to product, but not beyond that.<sup>38</sup>

The question of whether farming is more profitably carried out by large organisations that employ the people who work on them or small owner-operator units is not just one for countries that used to have communist governments. There have been a number of studies of farming in the developing world, and these have generally concluded that the small owner-operated farms produce higher yields and are more productive. For example, one examination of farms in Turkey found that overall small farms had higher yields than larger ones and attributed this mostly to higher labour inputs.<sup>39</sup> An economic analysis of farm productivity in the USA also concluded that an increase in farm size generally reduced rather than increased agricultural productivity, and suggested that there are diseconomies of size. However, using agricultural contractors and hiring specialists of different kinds also increased productivity, so it is not simply that the owner-operators are necessarily better at doing the farm work.<sup>40</sup>

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<sup>37</sup> Hughes (2000); Lerman and Sutton, *Productivity and efficiency of small and large farms in Moldova*.

<sup>38</sup> Gorton and Davidova, *Farm productivity and efficiency in the CEE applicant countries*.

<sup>39</sup> Ünal, *Small is beautiful*; Grain, *Hungry for land*. But see also Fan and Chan-Kang (2005), who make the point that increased land yield does not necessarily imply commercial viability, particularly on very small farms.

<sup>40</sup> Ahearn et al., *The effect of contracting and consolidation on farm profitability*.

Economic analyses of the broad issue are bedevilled by the many different factors apart from ownership and organisation size that affect productivity. We can get some idea of the complexity of the issue by returning to a brief consideration of the New Zealand dairy industry. Although there are one or two companies that own a number of dairy farms and herds, at the time of writing there has been no research which has compared their productivity with that of the more traditional owner-operator farm. The main reason for this lack of research seems to be simply that these large companies are too rare to be worth studying.

Yet, there is at least one factor that favours the further development of large-scale farms or farming corporations. This is the capital problem. At the time of writing (2015), the average selling price of a dairy farm in New Zealand is NZ \$5,228,000 (roughly equivalent to about US \$3,500,000). This buys the land, the milking plant, and other buildings. To this price must be added the cost of the cows (maybe \$1000–2000 each) and the price of shares in a dairy cooperative. Buying a dairy farm is expensive and for an aspiring individual usually means taking on a great deal of debt. Entry into dairy farming is thus a great deal easier for an organisation which has a number of shareholders than it is for an individual.<sup>41</sup>

Most dairy farmers sell their milk through a cooperative that they have a share in. Far the biggest of these cooperatives is Fonterra, which performs the task of turning the milk into dairy products, especially milk powder, and of marketing the products worldwide. Fonterra is wholly owned by the dairy farmers that send milk to it. Cooperatives such as Fonterra perform many useful functions for the dairy farmers, and of course their ownership of the cooperatives gives them both real and psychological ownership of the marketing and the way in which milk is transformed into other products. On the other hand, the cooperatives tend to be short of capital, and the obvious way of solving this difficulty—selling shares in the cooperatives to non-farmers—is resisted by the farmers because they would then lose some control over the industry.

If the high entry price of dairy farms tends to favour larger organisations over owner-operators, labour issues tend to favour the owner-operators. In brief, it is notoriously difficult to get people to work on

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<sup>41</sup> *New Zealand Dairy Statistics* (2014–2015).

dairy farms and even more difficult to get good, responsible managers to work on them. (I shall add here a personal note: I have taught more than one student whose parents work and own a dairy farm, and would be delighted if my student would give up psychology, study agriculture at university, and then come back and run the family farm. But my students simply are not interested.) Part of the problem is economic. Good dairy workers have to be (and are) reliably well paid, while the year-to-year returns from a farm have tended to be very variable. But the main problems are probably social. The farms are relatively isolated; the work, especially that connected with milking, is quite tedious; the holidays come at inconvenient times (in winter, when the cows are dried off); and the hours can be very long. The trend to daily rather than twice daily milking is a deliberate measure to solve some of the labour problems, at the cost of lower production.<sup>42</sup>

The traditional, and still flourishing, way to attract good, keen people into the dairy industry is to lower the capital barrier through the institution of sharemilking, which connects a farm owner with a farm manager or a farm worker. There are a number of different types of sharemilking contract, but one common arrangement, known as 50/50 sharemilking, brings together the farm owner who owns the land and the milking plant, and the sharemilker, who owns the herd and is responsible for breeding, maintaining, and milking it. The proceeds from this arrangement are normally split equally. Currently, about one-third of all New Zealand herds are run according to some kind of sharemilking arrangement.<sup>43</sup>

I have discussed the New Zealand dairy industry in detail to illustrate that New Zealand dairy farming is currently organised around the principle that the vast majority of the people who do it are both legal and psychological owners. As beyond a certain point there are no important economies of scale or division of labour advantages to be had in the industry, one can view it as a kind of natural experiment. The outcome of the experiment is that, to date at least, it has proven impossible for any but a small fraction of the industry to run competitively without having

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<sup>42</sup>Taylor et al., *Smarter not harder*.

<sup>43</sup>Ibid; *New Zealand Dairy Statistics* (2014–2015). A common variation is that a new sharemilker might own part but not all of the herd, and receive a lower proportion of the proceeds.

a high degree of ownership in the business. Thus, ownership must yield real benefits. Of course, whether or not the strength of these benefits will continue to ensure the dominance of owner-operators in the future is another matter. Certainly there will be changes. For example, in the foreseeable future, the gradual adoption of robotic milking will probably remove nearly half of the existing labour requirement, although at considerable capital cost.

To summarise, our comparison of owner-operator and large-scale farming produces similar conclusions to the research done in industrial and organisational psychology. There are advantages to legal and psychological ownership, and these are not restricted simply to people giving higher job satisfaction and other ratings on attitudinal questionnaires. The basic question of how much this ownership is worth relative to other desirable features of the work environment has not been answered, but there is certainly some worth.

## Psychological Ownership in Communist Countries

When one considers legal ownership and its possible motivating effect, communist countries had both an important advantage and an important disadvantage. The advantage was that the state owned nearly everything and, formally at least, the people owned the state. Everyone could reasonably claim a share in their own industry and, for that matter, in every industry and asset in the country. The disadvantage was that almost no one owned the enterprises they worked for. Indeed, in the Soviet Union at least, the group of people that worked the *kolkhoz* did not legally own these farms in a collective sense either, as all Soviet land was formally owned by the state.

There is little question that citizens of the Soviet Union did feel psychological ownership of their state, and that many took pride in its accomplishments, for example, the defeat of Nazi Germany, the launching of Yuri Gagarin into space, or simply the establishment of socialism. The effective lack of ability to change or influence governing personnel by democratic means probably reduced this level of ownership, but

alienation from central political decision-making is common enough in other political systems too. In many democracies, for example, the USA, the number of people who do not bother to attempt political control by voting is large and growing.<sup>44</sup> If one considers Pierce and Jussila's three routes to psychological ownership, then it is arguable that the ownership of the Soviet state felt by citizens would have been affected less by their inability to control the decisions made by the state, which is common in other countries as well, than by their inability to acquire much intimate knowledge of it. The secrecy of the Soviet Union may have been more alienating than the lack of democratic rights. Finally, one would expect psychological ownership in the other states of Eastern Europe to be somewhat lower than in the Soviet Union, as the policies adopted by the governments of these countries was subject to the approval of that of the USSR for many important decisions.

Generally, the organisation of production within the former communist countries probably reduced the level of ownership felt by those working in its different enterprises. The key reason for believing this is that communist organisation, again particularly within the Soviet Union, emphasised that most important decisions were made by a centre which was unelected, could ignore messages from further down the hierarchy, and was often secretive about its activities. Workers in enterprises had relatively little control over their activities and would not be generally well informed about the context their organisations operated in (although, of course, they would necessarily know about their immediate work context). The dual system of top-down control—through the normal state hierarchy and the communist party—would also reduce one's ability to predict what instructions the enterprise might receive.

Probably the level of psychological ownership differed from industry to industry. Put together, the preceding section and the discussion of agriculture in Chap. 4 indicate that psychological ownership was likely to have been relatively low in communist agriculture, and this may have been important in the relatively poor performance of the sector. On the other hand, it probably was not a major issue for medical practitioners in hospitals. Note here that it is unusual in market economies for medical

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<sup>44</sup> For example, Niemi and Weisberg, *Controversies in voting behaviour*.

practitioners to own their hospitals. Hospitals in the former communist world seem to have been rather bureaucratically run, but that, too, is often complained about in the West. Most likely the most important component of psychological ownership in hospitals anywhere is the level of professional commitment and responsibility felt by doctors and nurses for their patients and this should be similar under the two different systems.<sup>45</sup>

The majority of the research into psychological ownership and, as we saw in the previous chapter, much of the experimentation undertaken in communist countries to better motivate the workforce has focussed on the ordinary worker. How, for example, might a factory worker acquire more responsibility or motivation for doing a good job or working harder? However, given that in either system such workers have fairly limited control over the tasks they do and even less control over what the enterprise as a whole is doing, it may be that the potential for increasing psychological ownership is limited at this level, but higher at the level of, say, an enterprise manager or a member of a Senior Management Team. Within market economies there has been a good deal of attention paid to a variant of the principal–agent problem. So, for example, it is common for senior executives to be offered stock-options in a firm to attempt to align their financial interests with those of the shareholders.<sup>46</sup> Another way of doing this, which to date has received some but not much attention, is by trying to increase the level of psychological ownership felt by the managers. An interesting, but not unexpected, finding of the research to date is that close monitoring of the management might weaken this effect.<sup>47</sup> The way in which communist managers were scrutinised and monitored might well have diminished their level of psychological ownership in the enterprises they ran. However, there is no clear evidence for this.

Although any conclusions made about the level of psychological ownership felt by those working in the former communist world are essentially speculative, as there are no good data available, it seems likely that in practice the level of psychological ownership in the productive

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<sup>45</sup> Ho and Ali-Zade (2001), Rowland and Tlyukov (1991).

<sup>46</sup> Eisenhardt (1989).

<sup>47</sup> Sieger et al. (2013).

enterprise that people worked for (as opposed to their country) was often relatively low. This, in turn, may have been a factor in the relatively poor performance of the former communist economies.

But did it have to be this way? Is it essential that a communist economy will prevent its workers from acquiring psychological ownership in its enterprises or might it simply have been an outcome of the particular variety of communism that the Soviet Union practiced and, to a greater or less extent, imposed on Eastern Europe? In particular, we should note that the historic reluctance of the centre to allow free dissemination of information very likely reduced the level of psychological ownership, and this reluctance can be traced back to decisions made within the communist party before the party achieved power.

If we take the two key features of a communist economy to be that it is a central command economy and that the major means of production are owned by the state, then we would not expect the second of these to produce much difficulty for psychological ownership. If the choice for, say, a steel worker is between working for a steel mill that is owned by the state or working for a steel mill that is owned by a private company and in which the worker has no substantial shareholding, then the level of psychological ownership derived from real company ownership will be small in either case, but perhaps fractionally higher for the state-owned company. The level of psychological ownership can be enhanced by the workers having representation on the board of directors of the steel mill, but such partial governance control can happen given either state or private ownership. Curiously, at least within New Zealand, when the state has run enterprises which could equally well be run by private enterprise, the SOE is no more likely to have worker representation than is a private enterprise. So, for example, the government-appointed representatives on the board of Air New Zealand, which was effectively nationalised following a disastrous takeover deal, do not currently include a worker representative from the company.

Similarly, the actual level of control exerted by a steel worker over his or her own work does not depend much on whether the steel mill is owned by the state or private shareholders. It depends partly on the nature of the work itself, partly on the individual worker, for example, how experienced he or she is, and partly on the mindset of the worker's managers. There seems no good reason why this should be much affected by whether the managers work in a communist or market economy.



Owner-operator businesses are somewhat different. As we saw in the case of agriculture, there is good reason to believe that, where there are no great economies of scale, individually owned and operated businesses might be more productive than larger-scale operations. There may also be more job satisfaction. But there is no particular reason why owner-operator businesses cannot survive within a communist system. Indeed, many communist theorists have had little difficulty with allowing self-employed workers or small collectives a place in the economy.<sup>48</sup>

The effect on psychological ownership of running a central, command economy rather than a market economy is more problematic. If an enterprise exists within a market economy then it can and must retain flexibility in its decision-making. If it exists within a central, command economy, then it loses a good part of that flexibility, although it will probably retain some if, as happened in the Soviet Union, the goals set for the enterprise are to some extent negotiable. Clearly, then, the upper management of the enterprise will lose some control and with it some degree of psychological ownership. It is also likely that those working at lower levels in purchase or marketing departments might suffer some effects. On the other hand, it is difficult to see why the level of psychological ownership of anyone else within the enterprise would be affected by central decisions on what products should be made and who they should be delivered to. Of course, the central government might intervene in other ways that affect psychological ownership—for example, the government might mandate a particularly tiresome set of safety procedures—but this happens within present-day market economies as well.

To summarise, there is an important distinction to be made between legal and psychological ownership, and, in the absence of legal ownership, psychological ownership is enhanced if those working within an enterprise have more control, gain more knowledge, and are encouraged to invest in their work. Although there is reason to doubt that the former communist economies were good at enhancing psychological ownership of the workplace, in theory a communist economy could do a reasonable job of it.

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<sup>48</sup>For example, *Fundamentals*, Chap. 22.

## References

- Bacon, C. S. (1993). Student responsibility for learning. *Adolescence, 28*, 199–212.
- Baum, H. S. (1991). How bureaucracy discourages responsibility. In M. F. R. Kets de Vries (Ed.), *Organizations on the couch: Clinical perspectives on organizational behaviour* (pp. 264–285). San Francisco: Jossey-Bass.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research, 15*, 139–168.
- Brown, G., Pierce, J. L., & Crossley, C. (2014). Toward an understanding of the development of ownership feelings. *Journal of Organizational Behavior, 35*, 318–338.
- Clifford, M., & Sherman, S. J. (1975). Responsibility attribution in groups and individuals. A direct test of the diffusion of responsibility hypothesis. *Journal of Personality and Social Psychology, 32*, 1111–1118.
- Darley, J. M., & Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology, 8*, 377–383.
- Dow, G. K., & Putterman, L. (1999). Why capital (usually) hires labor: An assessment of proposed explanations. In M. M. Blair & M. J. Roe (Eds.), *Employees and corporate governance* (pp. 17–57). Washington, DC: Brookings Institution Press.
- Dunford, B. B., Schleicher, D. J., & Zhu, L. (2009). The relative importance of voluntary stock investment: Is stock ownership unnecessary for establishing an ownership culture? *Advances in Industrial and Labor Relations, 16*, 1–28.
- Edling, S., & Frelin, A. (2013). Doing good? Interpreting teachers' given and felt responsibility for pupil's well-being in an age of measurement. *Teachers and Teaching: Theory and Practice, 19*, 419–432.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review, 14*, 57–74.
- Fan, S., & Chan-Kang, C. (2005). Is small beautiful? Farm size, productivity and poverty in Asian agriculture. *Agricultural Economics, 32*(Supplement S1), 135–146.
- Fitzroy, F. R., & Kraft, K. (2005). Co-determination, efficiency and productivity. *British Journal of Industrial Relations, 43*, 233–247.
- Forsyth, D. R., Zyzniewsky, L. E., & Giammanco, C. A. (2002). Responsibility diffusion in cooperative collectives. *Personality and Social Psychology Bulletin, 28*, 54–65.

- Fraser, K., & Kemp, S. (2012). Effects of employee governance and operational control on psychological ownership and perceived justice. *New Zealand Journal of Psychology, 41*, 13–20.
- Freeman, S., Walker, M. R., Borden, R., & Latane, B. (1975). Diffusion of responsibility and restaurant tipping: Cheaper by the bunch. *Personality and Social Psychology Bulletin, 1*, 584–587.
- Fuller, J. B., Marler, L. E., & Hester, K. (2006). Promoting felt responsibility for constructive change and proactive behaviour: Exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior, 27*, 1089–1120.
- Garland, H., Sandefur, C. A., & Rogers, A. (1990). Deescalation of commitment in oil exploration: When sunk costs and negative feedback coincide. *Journal of Applied Psychology, 75*, 921–927.
- Ho, T., & Ali-Zade, N. (2001). Eastern hospitals in transition. *Eurohealth, 7*(3), 8–14.
- Hughes, G. (2000). Total productivity of emergent farm structures in Central and Eastern Europe. In M. Banse & S. Tangermann (Eds.), *Central and Eastern European agriculture in an expanding European Union* (pp. 61–87). Wallingford: CABI Publishing.
- Kahneman, D., Knetsch, J. L., & Thaler, R. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy, 98*, 1325–1348.
- New Zealand Dairy Statistics* (2014–2015).
- Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). “That’s not my job”: Developing flexible employee work orientations. *Academy of Management Journal, 40*, 899–929.
- Rowland, D., & Telyukov, A. V. (1991). Soviet health care from two perspectives. *Health Affairs, 10*, 71–86.
- Sayman, S., & Öncüler, A. (2005). Effects of study design characteristics on the WTA-WTP disparity: A meta analytic framework. *Journal of Economic Psychology, 26*, 289–312.
- Sieger, P., Zellweger, T., & Aquino, K. (2013). Turning agents into psychological principals: Aligning interests of non-owners through psychological ownership. *Journal of Management Studies, 50*, 361–388.
- Singer, A. E. (1999). Escalation of commitment. In P. E. Earl & S. Kemp (Eds.), *The Elgar companion to consumer research and economic psychology* (pp. 192–201). Cheltenham: Edward Elgar.
- Smith, S. C. (1991). On the economic rationale for co-determination law. *Journal of Economic Behavior and Organisation, 16*, 261–281.

- Staw, B. M. (1976). Knee-deep in the big muddy: Study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Performance*, 16, 27–44.
- Staw, B. M. (1981). The escalation of commitment to a course of action. *Academy of Management Review*, 6, 577–587.
- Thompson, D. F. (2014). Responsibility for failures of government: The problem of many hands. *The American Review of Public Administration*, 44, 259–273.