INTRODUCTION

Much extant commentary on whistleblowing follows any of four main approaches (which are not mutually exclusive): experiential surveys, psychological studies, legal studies, and ethical studies. The first approach reports on the individualized experience of whistleblowing; it focuses on how individuals decide to raise an issue, how organizations respond, how individuals suffer retaliation, and so forth (e.g., Dewing & Russell, 2014; Glazer & Glazer, 1989; Miceli & Near, 1992; Park, Blenkinsopp, Oktem, & Omurgonulsen, 2008; Park, Bjørkelo, & Blekisopp, 2018). The second approach identifies psychological and situational variables which make individuals more or less likely to become whistleblowers (e.g., Anvari, Wenzel, Woodyatt, & Alexander Haslam, 2019; Bjørkelo, Einarsen, & Mathiesen, 2010; Hess, Treviño, Chen, & Cross, 2019; Mesmer-Magnus & Chockalingam, 2005; Park & Lewis 2019; Sims & Keenan, 1998). The third approach studies the forms of and justifications for laws intended to encourage whistleblowers and protect them from retaliation (e.g., Ashton, 2015; Callahan, Dworkin, & Lewis, 2004; Lewis, Bowers, Fodder, & Mitchell, 2017; Lewis, 2018; Savage, 2016; Vaughn, 2012). The fourth approach considers ethical arguments for and against whistleblowing, evaluating competing moral imperatives such as altruism, honesty, loyalty, confidentiality, and deference (e.g., Boot, 2019; Ceva & Bocchiola, 2020; Grant, 2002; Hoffman & Schwartz 2015; Kumar & Santoro, 2017; Larmer, 1992; O’Sullivan & Ngau, 2014; Vandekerckhove & Commers, 2004). The present article offers a fifth approach: it seeks to clarify the power relations which whistleblowing involves, while largely abstracting from individual experiences, psychological characteristics, legal constraints, and ethical principles.

Specifically, this article presents a network perspective on whistleblowing and power. In the human relations context of this article, power means the ability to effect change through the agency of others; that is, the ability to influence others and to get things done. Power is conceived as deriving from the network positions of the key actors. The article also highlights four characteristic features of whistleblowing: third-party detriment, local subversion, appeal to central or external power, and reasonable expectation of concern. The feature of local subversion succinctly explains why whistleblowing is difficult. The feature of appeal to central or external power highlights that contrary to the perception of a democratizing phenomenon, whistleblowing tends to redistribute discretion away from local power toward more central power. This suggests a need for caution about institutional measures to promote whistleblowing in contexts where governance is already highly centralized.
emer gent; on the contrary, whistleblowing normally occurs in hierarchical networks, where power is partly designed and partly emergent. Nevertheless, concepts such as range, degree, and centrality, which are typically used to describe unstructured networks, can also be adapted to describe certain properties of hierarchies.

This article differs from the four long-established approaches outlined above in that it focuses on power relations. There is a more recent whistleblowing literature which also focuses on power relations, albeit with different analytical constructs to the network concepts in this article. One strand interprets whistleblowing as a manifestation of Foucault’s interpretation of the ancient Greek concept of parrhesia or “fearless speech,” whereby the whistleblower is viewed as a political actor whose sense of self depends on speaking the truth to more powerful persons (e.g., Mansbach, 2011; Vandekerckhove & Langenberg, 2012; Weiskopf & Tobias-Miersch, 2016). Conventional attitudes to whistleblowers are often ambivalent, insofar as they viewed as both heroes and traitors (e.g., Davis, 1989; Grant, 2002; Hersh, 2002; Rothschild & Miethe, 1999); the reinterpretation of whistleblowing as parrhesia, understood as both an ethical practice and an identity position, offers an alternative to this confusion (Kenny, 2019, pp. 28–29). Other recent perspectives on whistleblowing and power include power conceived as an organizational matrix of control that operates by regulating the intelligibility of speech, and so acts to delegitimize and exclude the “impossible” speech of whistleblowers (Kenny, 2018); power deriving from organizations’ discretion over the timeline for investigating and responding to whistleblowing complaints (Kenny, 2015); and the power of organizational and professional norms to continue to shape whistleblowers’ subjectivities even after they have been ostracized by those organizations and professions (Kenny, Fotaki, & Vandekerckhove, 2019).

Perhaps the closest earlier work to this article, at least in terms of area of inquiry, is King (1999) who discusses The implications of an organization’s structure on whistleblowing. He describes five organizational structures (centralized, matrix, horizontal, hybrid, and divisional), and makes observations such as “in large organizations, due to the number of sequential links, it is more difficult for managers to make members aware of established [whistleblowing] channels”; and “open communication between a superior and subordinate could alleviate the potential for external whistleblowing” (King, 1999, p. 324); but he makes no explicit reference to network concepts. Another strand of literature, not specifically concerned with whistleblowing, discusses how these properties may affect the incidence and outcomes of whistleblowing. I then discuss how these properties may affect the incidence and outcomes of whistleblowing. Finally, I stress that the network perspective is offered as a complement rather than a substitute to other approaches to the study of whistleblowing.

2 | A NETWORK PERSPECTIVE ON WHISTLEBLOWING

A widely cited definition of whistleblowing is as follows:

the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action (Near and Miceli (1985))

While a definition of this nature is adequate for many purposes, it glosses over the distinctive power relations which whistleblowing involves. Taken at face value, the above definition makes no distinction between the disclosure of misconduct perpetrated by one’s boss, by subordinates, or by peers; but each of these involves very different power relations, and often different moral valences. This vagueness about power relations tends to obscure the essentially subversive character of whistleblowing. A main point of this article is to highlight that whistleblowing always involves a challenge to a person with local power, that is, it involves local subversion. This feature is worth emphasizing because it is the most succinct explanation of why whistleblowing is difficult, why whistleblowers encounter resistance, and why they are often badly treated even when they are clearly right. To appreciate this feature more fully, it helps to think about the power relations which whistleblowing involves in a structural way, as in the following model.

The model involves four actors (nodes in a network) and three actions (relations or flows between the nodes). The actors are: (1) a victim (2) a whistleblower (3) a person with local power, and (4) a person with central or external power. The actions and information flows
are that (a) the person with local power perpetrates (or endorses, perhaps by inaction) a detriment on the victim; (b) information about the detriment is observed by the whistleblower; (c) information about the detriment is communicated by the whistleblower to the person with central or external power. This configuration of actors (in capitals) and actions or information flows (in lower case) is shown in Figure 1.

In a general conceptualization of whistleblowing such as Figure 1, it is not possible to use more specific terms for the person with local power and the person with central or external power, because each may encompass many types. Depending on the factual matrix, the person with local power could be the whistleblower’s direct manager in an employment relationship, or a more senior manager, or someone who is able to exert some influence over the whistleblower and others but without an employment relationship, and so forth. Similarly, the person with central or external power could be any of a more senior manager, a nonexecutive director, a regulator, a politician, or a journalist, and so forth.

Figure 1 also shows four characteristic features:

1. **Third-party detriment**: the whistleblower observes a detriment affecting someone else, which occurs under the aegis of some local power;

2. **Local subversion**: the whistleblower challenges the authority of a person with local power;

3. **Appeal to central or external power**: the whistleblower appeals to a person with higher power, either inside or outside the organization;

4. **Reasonable expectation of concern**: the whistleblower reasonably expects that the particular person chosen will be concerned by the actions of the local power, and take action to correct them.

I now discuss each of these characteristic features in turn.

### 2.1 Essential features of whistleblowing

1. **Third-party detriment**

   A whistleblowing disclosure always concerns detriment to a victim or potential victim other than the whistleblower. The detriment is predominantly third-party, but it need not be exclusively third-party; whistleblowers may become aware of third-party detriment only because they are to some degree affected themselves. Detriment is not confined to actual harm; it also encompasses risk of harm, where the local action (or inaction) criticized contributes to that risk. In Figure 1 the third-party victim is shown as having no ties to the other actors except for the (negative) “detriment” relationship with the local power. But it is also possible that the victim may have preexisting ties which influence whistleblowing and the response to it: for example, the victim might be a friend or family member of the whistleblower, or of the person to whom the whistle is blown.

   In this model, the origin and motivation of whistleblowing claims is the observation of third-party detriment. More usually, terms such as “illegality,” “wrongdoing,” or “immoral act” are used to describe the origin and motivation of whistleblowing claims; the summary table of common whistleblowing definitions in Jubb (1999) includes all of these terms. An advantage of “third-party detriment” is that it is less subjective, and so potentially amenable to agreement in a larger number of cases. Different observers can agree that an action gives rise to third-party detriment, and hence that a person who makes disclosures about it is a whistleblower, while possibly disagreeing about the separate issue of whether the action is actually right or wrong. As an example to illustrate this separation, suppose a university admissions officer reveals to a newspaper that the children of major donors are admitted despite falling below the normally required grades. We may disagree on whether this practice is right or wrong on its overall merits; “legacy admissions” are a common occurrence at elite U.S. universities, for which various rationalizations can be offered (e.g., perhaps the benefits to the institution and all its students from donations outweigh the detriment to the non-legacy applicants who are displaced). But because there is (1) third-party detriment
Whistleblowers have a reasonable expectation of concern, we should be able to agree that the official is a whistleblower, irrespective of our differing views on the overall merits of legacy admissions.

2. Local subversion

All whistleblowing involves an element of local subversion, that is, criticism of actions (or inactions) by a person superior to the whistleblower in a local hierarchy. Either the superior is the perpetrator of the third-party detriment, or the superior is at least complicit in the third-party detriment (perhaps because the whistleblowers’ peers are the perpetrators, and the superior who could intervene does not do so). The element of local subversion is the main reason why whistleblowing is difficult, and why it may need special protection under law. It is also the feature that distinguishes whistleblowing from reporting on misconduct by subordinates, and informing or snitching on misconduct by peers.

A more expansive alternative would be to say that whistleblowing need not involve local subversion, but must involve criticism of official acts, that is acts done pursuant to some local power vested in the person criticized. Using this concept, whistleblowing might encompass criticism directed at peers or subordinates exercising official power. However, criticism of subordinates (certainly) and peers (probably) represent the routine operation of a local power structure; such actions do not need the additional legitimacy conferred by a distinctive label. In my view it is better to reserve the “whistleblowing” label for actions which do involve local subversion, and hence need the additional legitimacy of a distinctive label.

3. Appeal to person with central or external power

Whistleblowing’s attempted local subversion always relies on disclosure to a person with central or external power. I include persons internal or external to the organization, because most whistleblowers who use external channels have first tried internal channels, and the basic process of whistleblowing tends to be similar in either case. This feature of appeal to a person with central or external power highlights how whistleblowing attempts local subversion. Local subversion as a response to wrongdoing could proceed in other ways—by overt defiance of orders, covert “slow walking” of orders, sabotage, or strike action—but these are not the ways of whistleblowing.

4. Reasonable expectation of concern

Whistleblowers have a reasonable expectation that the person to whom they choose to report will be concerned by their disclosures. By “reasonable” I mean only that the whistleblower’s subjective expectation is not wholly whimsical; I do not mean that all (or even most) observers must necessarily agree with the expectation. The reasonable expectation of concern substantiates the possibility of whistleblowing, and guides the choice of to whom to do it. The expectation may often not be fulfilled: empirical studies suggest that many whistleblowers make more than one attempt to blow the whistle internally before going external (e.g., Miceli, Near, & Dworkin, 2008), so that whistleblowing becomes a process rather than an event (Vandekerckhove & Phillips, 2017). However, a reasonable expectation that the person approached at each iteration will be concerned by the disclosure seems an essential feature; without such an expectation, it is hard to rationalize a putative whistleblower approaching a particular person at all. And where the whistleblower does go on to approach further persons, this can be understood as a response to the expectation of concern from the previous person not being fulfilled.

In my view, all four of the features discussed above—third-party detriment, local subversion, appeal to a person with central or external power, and subjective expectation of concern—need to be present for a disclosure to be characterized as whistleblowing. Where any of these features is missing, the following descriptions seem more apt:

- No third-party detriment: complaint or grievance
- No local subversion: reporting (on subordinates); informing or snitching (on peers)
- No appeal to a person with central or external power: treason or espionage (if disclosure made privately to an adversary); gossip (if disclosure made privately to peers)
- No reasonable expectation of concern: misdirection (if no reasonable expectation of concern from specific person approached); or trivia (if no reasonable expectation of concern from anyone).

Figure 2 illustrates, analogously to Figure 1, the configuration of power relations involved in complaints or grievances concerning one’s own interests, reporting on misconduct by subordinates, and snitching on misconduct by peers. I omit the cases where disclosures are made only privately to a rival (treason) or privately to peers (gossip), but these are also easy to draw, and again it is the configuration of power relations that distinguishes them from whistleblowing.

Note that the distinctions highlighted in Figure 2 are not necessarily deprecatory of complaining, reporting and snitching. Complaining about a matter affecting one’s own interests may be wholly justified; but it is not the same thing as whistleblowing, and characterizing it as such can lead to absurd results. This mistake was made in the drafting of the U.K.’s Public Interest Disclosure Act 1998 as originally enacted, whereby “whistleblowing” protections were extended to employees making complaints relating solely to their own employment terms, such as disputes about the calculation of personal bonuses in banking. Reporting on misconduct by subordinates represents the normal operations of local power; such actions are routine and not locally subversive, and so do not need legitimization by the distinctive “whistleblower” label. Snitching on peers may often be a morally justified choice, on either consequentialist or deontological grounds, and sometimes a moral imperative. But there exists a strong and widespread intuition that snitching has different moral valence to whistleblowing, and the feature of local subversion pinpoints the reason why: whistleblowers challenge local power, but snitches ingratiate themselves with local power. Note
that is true even for snitches who are motivated entirely by concern for third-party victims, and do not actively desire to ingratiate themselves with local power: the difference between snitching and whistleblowing arises principally from the different configuration of power relations, not from the motive.

The extended example in the next section illustrates the differences between this article’s concept of whistleblowing and proximate concepts such as complaining, snitching, treason, and misdirected communication. Appendix compares this article’s concept of whistleblowing with various definitions in previous literature as summarized by Jubb (1999).

2.2 | Example

Bob is an aviation maintenance engineer who supervises a team of technicians carrying out safety checks on passenger aircraft. Bob’s direct manager instructs him to make false reports to an aviation safety regulator confirming that particular checks have been carried out. Bob reports this maintenance fraud to a more senior manager.

There is third-party detriment (potential harm to the passengers and crew), local subversion (of the direct manager’s authority), appeal to a person with central or external power (the more senior manager), and reasonable expectation of concern (from the senior manager concerning the maintenance fraud). All four of the characteristic features of whistleblowing are present, so Bob is clearly a whistleblower. But the absence of any of the characteristic features will turn Bob into something else, as illustrated by the following modifications to the facts.

Suppose first that the maintenance checks are carried out, but Bob is not paid a bonus he was promised by his direct manager. Bob reports the broken promise to a more senior manager. Because there is no third-party detriment, this is not whistleblowing; it is better characterized as an employment complaint or grievance.

Alternatively, suppose that no instruction to make false reports is issued, but Bob notices that subordinates or peers are falsifying reports. He informs his direct manager. Because there is no local subversion, this is not whistleblowing; it is better characterized as either reporting (on subordinates) or snitching (on peers). In this case, reporting or snitching appears to be an admirable action, indeed probably a morally obligatory one. But because Bob can reasonably expect to be supported by his direct manager, his obeisance to local power does not need legitimization by the “whistleblower” label. If however his direct manager’s response is dismissive or ineffectual, and Bob then reports this to a more senior manager, then he will be a whistleblower.

Alternatively, suppose that Bob communicates information about the practice of false maintenance reporting to his previous manager at FIGURE 2 Complaining, reporting, and snitching (X represents locus of alleged misconduct)
a rival airline. Because there is no appeal to a person with central or external power over the action complained of, this is not whistleblowing. The report is made to a rival, so it is better characterized as treason or espionage (or in more anodyne language, as a breach of confidence).

As a final alternative, suppose that Bob makes a report to an aviation safety regulator, but his criticism is that the provision for future maintenance in the airline’s accounts is overstated, so that the company is currently paying less tax than it would otherwise pay. To a safety regulator, this criticism is of no interest: there is no reasonable expectation of concern from a safety regulator regarding the detail of accounting policies. Bob has misdirected his communication; if he goes no further, he will not be recognized as a whistleblower (or at least, not an effective one). If however Bob takes this criticism to the tax authorities or an accounting regulator, then there will be a reasonable expectation of concern, and so Bob will be a whistleblower. (It is possible that the safety regulator might point Bob in this direction, but this would be akin to a friend of Bob or a helpful stranger doing so; it has nothing to do with the safety regulator’s functions and powers, and hence does not substantiate a reasonable expectation of concern.)

2.3 | Incidental but inessential features of whistleblowing

It is also useful to highlight certain features which are commonly associated with whistleblowing, but which are not part of the model above, because they are not essential features.

2.3.1 | Personal identification

Anonymity may protect a whistleblower from reprisals; it may also reduce effectiveness, because less credence may be given to anonymous reports, and they may be more difficult to investigate. Whistleblowers with different preferences and facing different adversaries make this trade-off in different ways: some embrace (or perhaps preempt the inevitability of) personal identification (e.g., Edward Snowden); others reduce the costs of whistleblowing by permanently obscuring their identity (e.g., users of online dropboxes). It does not matter; any position on the spectrum of identifiability is consistent with whistleblowing.

2.3.2 | Altruistic motivation

The essential feature of third-party detriment implies that a whistleblower will typically have at least some element of altruistic concern. But disclosures promoted by other motivations—financial reward, tactical advantage (say obstructing one’s own dismissal), or personal animus against local power—can have all four of the characteristic features of whistleblowing. Whistleblowing is typically pro-social in effect, but it need not be altruistic in intent.

2.3.3 | Lawfulness (procedural correctness)

Whistleblowing laws often specify procedural requirements which whistleblowers must satisfy to gain some protection from reprisals. Examples include requirements to first use “official channels” such as whistleblowing hotlines, requirements for internal disclosure before external disclosure; and sometimes exclusions of whistleblowing for financial gain. It may be tactically advantageous for a whistleblower to comply with such requirements, but it is not essential to do so. Whistleblowing need not be a lawful act, and the third-party detriment complained of need not be unlawful. Indeed, the feature of local subversion emphasizes that whistleblowing will usually be at least “locally unlawful” (in the sense that it challenges a person with local power); it may also be “globally unlawful” in relation to some law of the jurisdiction. But if the four essential features of whistleblowing are evident, unlawfulness does not detract from the individual’s status as a whistleblower.

I stress the view that personal identification, altruism, and lawfulness are only incidental features because some authors in contrast advocate these are all necessary features. For example, Sagar, 2013, pp. 127–139) asserts that to qualify as whistleblowers, individuals must reveal their true identities; that their motives must be appraised as altruistic; that they must attempt to report through “official channels” before any alternative form of disclosure; and that even the reporting of unlawful acts may not qualify as whistleblowing, if the acts do not also meet a higher threshold of “genuine abuse of authority.” This seems to me a narrow interpretation of whistleblowing, unduly restrictive and establishmentarian” (Shafer, 2014, p. 140).

3 | CHARACTERIZING NETWORK STRUCTURE

While the above four-actor model clarifies the essence of whistleblowing, and in particular its locally subversive nature, the interactions of the actors highlighted in that model do not occur in isolation: the whistleblower, person with local power, and person with central power are all embedded in a hierarchy. The incidence and patterns of whistleblowing may be sensitive to the topology of the hierarchy. Figure 3 shows two simple examples of hierarchies, which I shall use to illustrate concepts which can be applied in more complex and realistic hierarchies.

In Figure 3a, each node represents one individual (one actor) in the organization. The hierarchy shown has four levels from level 4 (actors who have nobody reporting to them) to level 1 (the highest authority in the organization). Lines between actors at different levels are connections or “ties.” The presence of a tie between two actors represents regular communication between them. The ties shown are “vertical” in the sense that they all represent bilateral hierarchical relations, where orders flow downward, and reports flow upward. The form of hierarchy represented in Figure 3a is equivalent to a military chain of command: that is, all actors give orders only to the subset of actors assigned to them in the next level down the hierarchy, and make reports to a single superior in the next level up the hierarchy.
Individuals may also interact with peers at the same level, but these ties are approximately neutral in terms of power, and are therefore, omitted in the representation of a military chain of command.3

Figure 3b shows a similar hierarchy, except that there are some additional ties represented by curved lines. The curved ties indicate that some communications regularly “skip” some levels in the hierarchy. These “level-skipping” ties need not be of the same nature or strength as the hierarchical ties between immediately adjacent levels; they could instead represent different types of relationship such as kinship or friendship, or common membership of a social group outside the organization.

How can we characterize the two hierarchies in Figure 3 and the differences between them? Helpful concepts for the whole hierarchy are the range and strictness. Helpful concepts for individual actors are degree, span of control, and centrality.

3.1 | Range

The range of a hierarchy is the number of incremental steps in authority as one moves from the lowest to the highest levels. The hierarchies in Figure 3 each have a range of three. The range between
two actors is the number of increments in authority from the lower to the higher. The range between each of actors 3a to 3d and actor 1 in Figure 3 is two.\(^4\)

### 3.2 | Strictness

The strictness of a hierarchy refers to the absence of communications (orders downward or reports upward) which skip one or more hierarchical levels. In Figure 3, an index of the strictness of the hierarchy can be calculated by counting the curved “level-skipping” ties, dividing by the total of all possible “level-skipping” ties, and taking the complement of the result (i.e., one minus the result). In each of Figure 2a,b, there are 10 possible “level-skipping” ties.\(^5\) Thus, the hierarchy in Figure 3a has a strictness of 1–0/10 = 1 (a military chain of command); the hierarchy in Figure 3b has a strictness of 1–3/10 = 0.7; a hierarchy where all the possible “level-skipping” relationships are present has a strictness of zero (a maximally flexible hierarchy). A strictness of zero does not mean anarchy. With strictness of zero, orders still flow downward, but an actor can give orders to any lower level in his own branch of the hierarchy, and make reports upward to any higher level in the same branch.

### 3.3 | Degree

The degree of an individual actor is the number of connections he has to other actors. In unstructured networks, high degree is reliably associated with high power. In a hierarchy, the formal structure of the hierarchy means that degree is not an absolute measure of power; but for actors of equivalent hierarchical status, it is likely to be a good guide. In Figure 3a, of the four actors at the same Level 3 of the hierarchy, the actor 3b with degree 3 will tend to have more power than actor 3a with degree 2, who will have more power than actors 3c and 3d each with degree 1.

### 3.4 | Span of control

The span of control of an actor refers to the number of direct reports, that is, subordinates who are “one step down” in the same branch of the hierarchy. Note that span of control need not necessarily decrease as one moves down a hierarchy (and may even increase over some ranges—a chief executive might have only say 10 managers as direct reports, but one of those might have 15 of her own direct reports). In Figure 3a, actors 1, 2a, 2b, and 3b all have two direct reports, and so all have the same span of control of two.

### 3.5 | Centrality

In a hierarchy, an actor has high centrality if he can command a large number of actors at lower levels in the same branch of the hierarchy. This excludes actors who are at lower levels in a different branch of the hierarchy, such that the original actor has no “line of authority” to issue an order to them. Thus, in Figure 3a, actor 1 has the highest centrality. Actors 3a and 3b, although both at the same level of the hierarchy, differ in centrality: 3b has higher centrality by virtue of having authority over two rather than one actors.

More subtly, centrality also depends on whether an individual has any ties to persons who are themselves powerful. In Figure 3a, actor 4a has no hierarchical power over any other actor; but in Figure 3b, he has acquired a level-skipping tie directly to actor 1. Despite his lack of hierarchical power, actor 4a then has some centrality (and hence power) by virtue of his direct tie to a powerful person. The idea that an actor has high centrality if he is “well connected to the well-connected” can be quantified by the mathematical concept of eigenvector centrality. Another example gives the intuition: eigenvector centrality is the basis of the Google PageRank algorithm, which prioritizes pages which are well connected to other well-connected pages.

### 4 | HOW NETWORK STRUCTURE AFFECTS ON WHISTLEBLOWING

Using the concepts from Section 3, I now make some observations about how whistleblowing works and its prospects of success under different configurations of hierarchy.

#### 4.1 | Whistleblowing reduces local power, and increases central or external power

Whistleblowing is typically perceived as a democratizing phenomenon which gives voice to the concerns of subordinates and holds power to account (e.g., Burke & Cooper, 2013; Greenberg & Edwards, 2009; Mannion & Davies, 2015). This is true at a local level, and is reflected in one of the characteristic features of whistleblowing, local subversion. But at a global level, another characteristic feature of whistleblowing is appeal to a person with central or external power. Whistleblowing gives persons with central or external power new information, and discretion about what to do on the basis of that information: punish the person with local power, punish the whistleblower, or just sit on the information and do nothing. Whistleblowing reduces local power, and increases central or external power.

This increase in central or external power is an often neglected and potentially troubling consequence of whistleblowing. Whistleblowing is good at exposing persons with local power who deviate from centrally determined policies; but what if the central policies are themselves malign? Might promotion of whistleblowing sometimes merely increase the effectiveness of malign central policies? This paradoxical possibility suggests that when assessing the likely beneficence of legislative or other efforts to promote whistleblowing, we should be cautious where power is concentrated, and optimistic where power is distributed. Concern about increased concentration of power is also an argument for wide and permissive
interpretations of whistleblowing, which legitimize whistleblowing to a range of persons, external as well as internal to an organization.

For a vivid illustration of the potentially malign effect of whistleblowing under highly centralized governance, think about Jewish families struggling to flee German-occupied territories in the late 1930s. Histories of this period give many accounts of corruption by junior officials, both of Germany and of occupied nations, in the issue of false identities, visas, and other documents to refugees (e.g. Levine, 2010; Paldiel, 2000; Smith, 1999). The construct of whistleblowing (had it then existed) might have limited this local corruption, and so given greater efficacy to the prevailing central power; but that central power was itself malign. Viewed from today, the optimal amount of corruption in the issue of travel documents in Germany circa 1938 was fairly high. This is an extreme example, but in weaker form the point is quite general: the optimal amount of local corruption in any highly centralized system of governance is unlikely to be zero.

For a more contemporary illustration, consider the reporting requirements of the Organization of Economic Cooperation and Development (OECD) for automatic exchange of information on bank accounts from financial institutions to the national authorities of the account holder. The intent of these reporting requirements appears to be to institutionalize a form (mandatory) reporting on tax evasion. But the actual effect of the requirements encompasses the automatic supply of information to authoritarian regimes on any citizens who hold foreign bank accounts and foreign assets. These assets may often be held principally as a form of insurance against future victimization by the regime rather than for any tax avoidance motive. Privacy from government, including financial privacy, can be vital for those who live under capricious regimes, or at high risk of kidnapping or extortion. In this context, the provocative headline of the Foglia (2019) critique of the OECD requirements may well be accurate: “Western transparency is fueling Chinese repression.”

Another vignette which can be understood through the framing that whistleblowing increases central power is given by Qin, Stromberg, and Wu (2017), who note that in China, the central government is quite tolerant of even vituperative criticisms of individual local officials on social media. Superficially, this may seem surprising in the context of pervasive censorship and central control of media in China. But it can be understood by noting that an unusually large volume of whistleblowing complaints about a particular local official is a low-cost monitoring mechanism for central power to identify local deviations from central policies, and so allowing and even encouraging this form of whistleblowing can reinforce central power.

Another way of describing the power centralization that whistleblowing can bring about is to say that whistleblowing tends to increase the effectiveness of law enforcement (where “law enforcement” is broadly construed so as to include the implementation of local organizational rules as the context requires). This suggests that efforts to facilitate or encourage whistleblowing (e.g., laws, hotlines, and publicity campaigns) should be preferentially directed to hierarchical ranges where more effective law enforcement is unambiguously desirable. In my view it is generally not desirable for law enforcement—whether of organizational rules or statutory laws—to be fully effective at all levels of all hierarchies, because innovation and progress often depend on some degree of rule-breaking. I am confident that some statutory laws which currently enjoy wide support (including from me) will be regarded as misconceived or even barbaric in 200 years’ time; my problem is I do not know which current laws are misconceived. But social progress clearly depends on being able to break bad laws, which would be difficult in a world where all law enforcement was fully effective.

Sophisticated whistleblowers can lessen their dependence on the discretionary action of any single power by simultaneously approaching more than one. The former National Security Agency contractor Edward Snowden appears to have consciously followed this strategy:

Snowden was deliberately juggling the three journalists and their outlets. Each one – Gellman, Poitras, and Greenwald – offered a decidedly different prospect. ‘He did not want to be pre-empted’, Gellman says, referring to the government’s stopping publication. ‘That would have been his worst case. This, I think, does help explain why he had multiple outlets. He didn’t know whether any of us would be there ultimately or our news agencies wouldn’t go for it, or someone would come and take the documents from us, or whatever. And you can see what a meticulous planner he is from everything that is out now’. (Burrough et al., 2014).

4.2 Internal power typically derives from few strong ties, external power from many weak ties

Suppose a whistleblower takes an allegation that a middle manager is accepting bribes to a corporate director. The power of the director derives from (a) her hierarchical authority over the corrupt middle manager and (b) her horizontal ties to peers such as other directors, and her hierarchical tie to the chief executive. Internal power typically derives from few strong ties. Now suppose instead that the whistleblower is dissatisfied with the director’s response, and therefore, takes the allegation of bribery to a newspaper. The newspaper has no hierarchical authority to countermand the middle manager whom the whistleblower criticizes, and no ties to other persons with power in the organization. But it can publish stories about the bribery, which will be read by millions of people, including those who may themselves have some power over the organization, such as politicians and regulators. The newspaper has only weak ties (principally the tie of “readership”), but duplicated over millions of people. External power typically derives from many weak ties.

4.3 Whistleblowing is harder over larger ranges of subversion

In Figure 3a, suppose actor 2a inflicts some detriment on a third-party, and the subordinate actors at levels 3 and 4 observe this. If
actors at level 3 blow the whistle to 1, this is their boss once removed; the range of the subversion is 2. But if actors at level 4 blow the whistle to 1, this is their boss twice removed; the range of the subversion is 3.

A larger range of subversion tends to create difficulties for both the whistleblower and the person with central power. For the whistleblower, the report has to be made to a more remote person, whom the whistleblower may be unsure how to approach. For that person, endorsing the whistleblower’s criticism involves subverting a larger range of the organizational hierarchy, which may undermine its future legitimacy and effectiveness. Greater difficulty for both whistleblower and the person to whom the report is made implies lower likelihood of success.

Now suppose instead that the actors at levels 3 and 4 do not expect that actor 1 would be concerned by the level 2 actor’s behavior. To be successful, any whistleblowing complaint must then be made to an external power, and must result in the (expected) views of actor 1 being over-ruled; that is, the entire organizational hierarchy must be subverted. The range of subversion for external whistleblowing is usually larger than with internal whistleblowing. Note that this does not mean that external whistleblowing is a bad strategic choice. Rather it means that matters which demand external whistleblowing—those for which internal whistleblowing has no prospect of success, because there is no reasonable expectation of concern at any level within the internal hierarchy—are more difficult for whistleblowers than those for which such an expectation exists.

4.4 | Whistleblowing is harder in stricter hierarchies

Whistleblowing involves communication via a tie which skips at least one level in the hierarchy. Where a hierarchy has low strictness (i.e., many “level-skipping” ties exist), a potential whistleblower is more likely already to have a tie to a suitable person to whom the whistle can be blown. In Figure 3b, actor 4a already has a tie with actor 1; so if when he wants to blow the whistle on actor 2a, the preexisting relationship may help to offset the difficulty which would otherwise arise from the large range of subversion. Even if 4a did not already have a relationship with actor 1, initiating it afresh is likely to be easier in an organization where the hierarchy has low strictness, so that level-skipping ties are commonplace.

4.5 | Lower degree may facilitate external whistleblowing

Most actors in Figure 3b have ties to at least two other actors. The exceptions are actors 4b and 4c, who have ties only to their immediate superiors. In network terms, actors 4b and 4c have “low degree” (in their case, a degree of one). Low degree may increase an actor’s propensity to blow the whistle to an external rather than central power, for three reasons. First, lower degree suggests a lack of the preexisting level-skipping ties which could facilitate internal whistleblowing. Second, lower degree may reduce the perceived social cost (e.g., possible ostracism from colleagues) of external whistleblowing. Third, lower degree suggests a lower effect of organizational “group-think” in inhibiting whistleblowing.

It follows that an organization which wishes to keep secrets from outsiders should ensure that as far as possible, actors with low degree do not have access to those secrets. Large databases held in electronic form tend to have the opposite effect: either accidentally or by design, they make secrets accessible and portable to many actors, including those of low degree. This technological change in accessibility and portability of secrets for actors of low degree may be a more important explanation for the spate of mass disclosures in recent years (e.g., Wikileaks, Luxleaks, Panama Papers, and so forth) than any change in the underlying beliefs or motivations of actors of low degree. Affordances shape actions; technology is often upstream of politics.

4.6 | Persons with a larger span of control are more likely to become the target of whistleblowing claims

“Span of control” refers to the number of actors which an actor in a position of local power has reporting directly to her. In Figure 3a, actors 1, 2a, 2b, and 3b all have a span of control of two, and actor 3a has a span of control of one. Where a person has a larger span of control, this means more subordinates with knowledge of any third-party detriment imposed by local power, and potentially differing judgments of propriety. A larger number of subordinates increases the chance that at least one will decide to blow the whistle.

4.7 | Focus whistleblowing promotion on enclaves

An enclave (also known as a clique) is a group of actors who have many and strong ties within the group, but few and weak ties outside the group. Enclaves tend to be vulnerable to corruption, because the density of in-group ties facilitates cooperation to develop distinctive norms, while the scarcity of out-group ties limits opportunities for monitoring by outsiders or whistleblowing to outsiders (Ferrali, 2018). Networks with a higher incidence of enclaves, that is, higher modularity (Newman, 2006), may tend to have a higher overall incidence of corruption. This suggests that promotion of whistleblowing (and other anti-corruption mechanisms such as auditing) should be preferentially directed at networks with high modularity, and particularly at enclaves within them.

4.8 | “Bell-ringers” and unstructured networks

The discussion above focuses on hierarchies, which are a particular type of network where structure has both planned and emergent
aspects, and whistleblowing is difficult primarily because it involves subverting the planned design over at least part of its range. This framing has been chosen because the term "whistleblower" typically describes a person embedded in a hierarchy. But sometimes the term is also used to encompass persons who observe and report events from outside an organization, the so-called "bell-ringers" (Miceli, Dreyfus, & Near, 2014). For persons outside an organization, the concept of a hierarchy is less relevant; instead, the bell-ringer, local power, and central power can be thought of as embedded in an unstructured network where power is a wholly emergent property.

To illustrate, suppose the putative bell-ringer receives a mis-addressed e-mail which contains a schedule detailing the award of public contracts in exchange for bribes paid to a politician. The bell-ringer is situated an unstructured network comprising his own ties, those of the politician, and those of any person to whom he might blow the whistle. The prospects for successful whistleblowing depend on the network degree and centrality of each of the parties (i.e., how many ties and to whom). It helps if the bell-ringer chooses a journalist at a newspaper with a large number of readers (many weak ties), or if the bell-ringer is a personal friend of the editor (a single strong tie). On the contrary, if the politician has strong ties, or many ties—if the politician is a friend of the editor, or can mobilize many supporters to defend the criticized actions—then that will tend to reduce the prospect of successful whistleblowing. To put this another way: the outcome of whistleblowing is determined partly by social capital, and in the absence of hierarchy, network degree and centrality may be good measures of social capital.

Unstructured networks often have the "scale-free" property (e.g., Barabási & Bonabeau, 2003) whereby a very few nodes accrue a very large number of ties, so that high power accrues to these nodes despite the absence of hierarchical design. I noted earlier that in a hierarchy, whistleblowing tends to increase central power but reduce local power. The same is probably true in an unstructured network: a higher incidence of whistleblowing reduces the scope for unpublicized malfeasance at nodes of relatively low degree, but increases the power of the more central nodes, to whom whistleblowers choose to make reports precisely because these nodes are already influential (the so-called "preferential attachment" in Barabási & Albert, 1999). This naturally emergent centralization may be an argument against giving particular officials or types of publications special legal privileges in relation to whistleblowing, and in favor of broad and permissive cultural and legal interpretations which legitimize whistleblowing to a wide range of external powers, not just those already endowed with high centrality.

5 | LIMITATIONS OF THE NETWORK PERSPECTIVE

The network perspective characterizes the relations between actors without reference to a time dimension, and so it cannot explicitly represent whistleblowing as a protracted process (e.g., Vandekerckhove & Phillips, 2017). However, a process can be conceived as a sequence of instances of (timeless) network relations. Specifically, when the whistleblower’s reasonable expectation of concern from the person approached is unfulfilled (i.e., unsuccessful whistleblowing), and the whistleblower looks for a new person for whom a reasonable expectation of concern exists, this can be thought of as a new instance of the link from whistleblower to person with central or external power. The success or failure of whistleblowing in this new instance is then contingent on the new network properties (the centrality of the person to whom the new report is made, and the range of subversion involved).

In the network perspective, the distance between two actors is conceived as the number of links along the shortest path between them (called the "range" or "range of subversion" in the hierarchical context in this paper). Network constructs cannot represent the idea that the difference in power between two actors (e.g., between a person and their immediate boss) may be perceived as large or small, independent of the network positions of the two actors. Perceptions of power differences and the extent to which those differences should be accepted are characteristically larger in some cultures than in others, a phenomenon captured by the Power Distance dimension in Hofstede’s theory of cultural dimensions (Hofstede, 1980). The Power Distance Index tends to be higher for East European, Latin, Asian, and African countries, and lower for Germanic and English-speaking Western countries (Hofstede, 2011). Intuitively, Power Distance seems likely to be negatively associated with probability of whistleblowing, and this has tended to be confirmed in empirical studies. Differences between cultures in Power Distance suggest a need for caution in when applying the network perspective in different cultures. For example, whistleblowing with a given range of subversion, say three (that is, reporting to the boss of one’s boss’s boss) may be perceived differently in cultures with lower and higher Power Distance.

6 | DISCUSSION

The main contribution of this article is to present a network perspective on whistleblowing. It clarifies the nature of whistleblowing by reference to the network relations between four actors (victim, whistleblower, a person with local power, and a person with central or external power), and four characteristic features of whistleblowing (third-party detriment, local subversion, appeal to central or external power, and expectation of concern).

The feature of local subversion highlights the fundamental difference between whistleblowing and adjacent phenomena such as complaints about one’s own treatment, reporting on subordinates, or snitching on peers. This succinctly explains why whistleblowers encounter controversy and resistance, and why they are often badly treated even when they are clearly right. The schematic representation in Figure 1 emphasizes the locally subversive nature of
whistleblowing, and Figure 2 succinctly distinguishes it from the adjacent phenomena. These distinctions are in my view more crisply explained by the network perspective than by the other perspectives that I summarized at the start of this article.

The feature of appeal to a person with central or external power highlights that contrary to the common perception of a democratizing phenomenon, whistleblowing can often redistribute discretion away from a person with local power who is criticized toward a person with more central or external power. The increase in central power consequent on whistleblowing may be troubling where there is a possibility that central power is itself malign: whistleblowing might then just increase the effectiveness of malign policies. This suggests a need for caution about legislative or other efforts to promote whistleblowing in contexts where governance is already highly centralized.

The actors in an organization will of course have idiosyncratic personal characteristics and beliefs which affect their actions, and so the focus in this article on the network relations between them should not be expected to fully explain whistleblowing phenomena. The network perspective is a complement rather than a substitute for the survey, psychological, legal, and ethical perspectives, and each approach addresses questions which the others cannot answer. For example, the network perspective cannot explain which of two actors with equivalent knowledge and similar network positions but different personality characteristics is more likely to become a whistleblower. Conversely, the psychological perspective cannot explain which of two actors with equivalent knowledge and similar personalities but different network positions is more likely to become a whistleblower. Understanding is best advanced by combining multiple perspectives.

7 | CONCLUSION

In this article I presented a network perspective on whistleblowing. I described how whistleblowing affects, and is affected by, the preexisting distribution of power inside and outside an organization, where power is conceptualized as deriving from the network positions of the key actors. The focus on network positions facilitated crisp distinctions between whistleblowing and the adjacent phenomena of complaining about one’s own interests, reporting on subordinates, and snitching on peers.

The network perspective suggests many possible research agendas. For example, I have theorized that whistleblowing should be more straightforward in hierarchies with low strictness, and where the range of required subversion is small. While this seems plausible, the incidence and outcomes of whistleblowing in “strict” versus “loose” hierarchies, and over small versus large hierarchical ranges, could be investigated empirically. I have also theorized that actors of low degree are more likely to become external whistleblowers; if this is correct, it should be possible to verify that external whistleblowers are typically less connected to their peers than those peers are among themselves. Finally, I have suggested that persons with a larger span of control (that is a larger number of persons reporting directly to them) are more likely to become the target of whistleblowing claims; in organizations where managers of equivalent seniority have differing numbers of direct reports, it may be possible to validate this empirically.

CONFLICT OF INTEREST

The author declares that he has no conflict of interest.

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ENDNOTES

1 In more general usage, “power” can refer to the ability to get things done acting alone; it need not involve the agency of others. A mathematician has the power to produce proofs; an Olympic weightlifter has the power to lift heavy weights. But we are not concerned with such solitary powers in this article.

2 This rule was established in the 2002 employment tribunal case Parkins v. Sodexo Ltd. The rule was reversed by the Enterprise and Regulatory Reform Act 2013, which requires a whistleblower to have reasonable belief that a disclosure is made “in the public interest” (but not excluding cases where the whistleblower’s own interests are also engaged). The presence of “third-party detriment” (or potential detriment) is similar to “in the public interest,” but in my view more objectively determinable.

3 Peer ties are not completely neutral: an individual with many peer ties will probably be more powerful than an individual with few peer ties. But the vertical ties are more important, so I focus mainly on those.

4 Network analysts would typically use the term “distance” instead of “range” for the shortest path between two nodes, and “diameter” for the shortest distance between the two most distant points in the network; but “range” seems a more descriptive term for a hierarchy.

5 Each of the three actors at level 4 has two possible level-skipping ties, and each of the four actors at level 3 has one possible level-skipping tie. This assumes that level-skipping ties cannot link a lower actor to an upper actor who is in a different “chain of command,” for example, actor 4a can be linked to 2a, but not to 2b. For some organizations, it might be more accurate to negate this assumption.

6 Vandekerckhove et al (2014) review 11 empirical studies of the association between Power Distance and probability of whistleblowing. Seven found a negative relationship, three no relationship, and one a positive relationship (the last related specifically to external rather than internal whistleblowing).

REFERENCES


APPENDIX

Comparisons with previous authors’ definitions of whistleblowing

A widely cited definition of whistleblowing is that of Near and Miceli (1985):

‘the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action’.

This definition maps onto the network perspective as follows:

Organization members, employers, persons, or organizations that may be able to effect action correspond to three of the four actors: whistleblower, local power, central, or external power, respectively. Disclosure corresponds to appeal to central or external power. The idea of illegal, immoral, or illegitimate practices alludes to the fourth actor, the victim, who suffers detriment about which there is a reasonable expectation of concern. Note that this definition has no element corresponding to the idea of local subversion, and therefore, does not highlight the differences between whistleblowing (as I define it), reporting on subordinates, and snitching on peers.

Jubb (1999) conveniently summarizes seven definitions of whistleblowing given by previous authors. He infers that a definition of whistleblowing includes six necessary elements: (a) an act of disclosure (b) an actor (c) a disclosure subject (d) a target organization (e) a disclosure recipient (f) an outcome, the disclosure entering the public domain. These six elements map onto the network perspective as follows:

- elements (b), (c), (d), and (e) correspond to the four actors: respectively, the whistleblower, victim, local power, central, or external power
- element (d), a target organization held responsible
- element (a) an act of disclosure corresponds to appeal to central or external power
- element (f) the disclosure entering the public domain, does not feature in my definition, which allows that a disclosure might be made internally or privately, for example, to a regulator.

Jubb’s six elements, and the seven previous definitions of whistleblowing which he characterizes by these six elements, do not explicitly reference the idea of local subversion. But he does emphasize elsewhere in his text that whistleblowing is an act of dissent, and that this is the feature which distinguishes whistleblowing from other reporting of misconduct.

AUTHOR BIOGRAPHY

Guy Thomas is an actuary and investor, and a philanthropist with an interest in whistleblowing and freedom of speech. His books include Loss Coverage: Why Insurance Works Better with Some Adverse Selection (Cambridge University Press) and Free Capital: How Twelve Private Investors Made Millions in the Stock Market (Harriman House). He is an Honorary Lecturer at the University of Kent.

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