Delegative Democracy

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Abstract

Delegative democracy is a new paradigm for democratic organization which emphasizes individually chosen vote transfers ("delegation") over mass election. Delegative democracy combines the best elements of direct and representative democracy by replacing artificially imposed representation structures with an adaptive structure founded on real personal and group trust relationships. Delegative democracy empowers individuals and encourages widespread direct participation in a democratic organization, without unduly burdening or disenfranchising those members who, for lack of time, interest, or knowledge, would prefer to take a more passive role.

1 Introduction

The principle of democratic self-organization has become a pervasive social value in the modern world, both in national governments and in many other types of organizations such as political, environmental, or religious groups. The basic premise of democracy, after all, seems quite sound: that the best way to ensure that an organization serves the interests of all its members fairly and equitably is to spread the ultimate power of decision and action evenly among all of the organization's members. The controversy arises in the practical details of how agreement is to be achieved on making rules and taking actions in the face of inevitable disagreements, conflicts of interest, and varying levels of time, knowledge, and abilities among members.

Although voting is invariably a key component of democratic decision-making, the first fundamental practical question that arises is whether voting "in the large" should be for the purpose of making decisions or electing representatives. This question defines the core distinction between the principles of *direct democracy* and *representative democracy*. It is the tension between these two paradigms, as well as the conflicts among different styles of representative democracy, that provides the motivation and groundwork for delegative democracy. The two primary existing paradigms are reviewed briefly below before delegative democracy is introduced.

1.1 Direct Democracy

The basic principle of direct democracy is that, to ensure maximum equality and fairness, all members of an organization should ideally take part directly in making all important decisions. Unfortunately, direct democracy in its pure form only works in small and highly cohesive groups. In any organization of nontrivial size and complexity, there are simply too many decisions to be made to expect everyone to participate in all of them. Even in bodies of fewer than a hundred members, attempts at pure direct democracy often do not in practice encourage meaningful widespread participation, but instead merely serve to disenfranchise those without the time, patience, and dedication required to sit through seemingly endless deliberative gatherings. In larger or more widely distributed organizations, let alone governments, pure direct democracy is simply infeasible.

Furthermore, even if pure direct democracy was feasible, it is not clear that it would be desirable. Any real human community shows a wide variance in knowledge, interests, and abilities among its members, and if the influence of each member is forced to be exactly equal, then the effective intelligence and wisdom of the collective may be no better than the average intelligence and wisdom of its members. In fact, because the

naïve aggregation of multiple sensible but conflicting policies can easily result in a completely nonsensical collective policy, the effective wisdom of the collective can easily turn out to be much worse than this average.

1.2 Representative Democracy

For these reasons and others, large-scale democracy in the modern world always involves some form of representative structure, in which a relatively small number of leaders are elected by the membership at large to make decisions on their behalf. However, even within the paradigm of representative democracy, a wide variety of representation structures and election systems are in use, which have vastly different properties and often ultimately emphasize quite different social values[Kat97]. A representative structure that encourages stability or cohesiveness of policy may have a greater risk of being subverted or taken over by a powerful entrenched minority. A structure that ensures proportional representation along certain lines (e.g., geographic) may still be prone to vast disproportionalities along different lines (e.g., ethnic, racial, or gender). A structure designed to guard against tyranny of the majority through diversification and separation of powers may become inflexible and ineffective due to the constant threat of gridlock. There certainly appears to be no single "best" representative structure.

Regardless of specific structure, representative democratic systems are invariably built around the premise that in a given election, voters are expected to choose between a small number of candidates or parties for a given position or representative body, with large representative bodies usually being divided into pre-defined districts or constituencies to which voters are pre-assigned. Those candidates who "win" an election take office, which in large organizations and governments is usually a paid full-time position, while those who "lose" get nothing other than the incidental publicity benefits of running a campaign. A key problem in this traditional paradigm, however, is the tension inherent in the choice of size of the representative body. A smaller body is much less costly to support, and may be more efficient and able to act quickly to changing situations—the extreme case being single-seat positions which can take direct action with no deliberation necessary but are representative only in the very coarsest possible sense. On the other hand, a larger body can represent the electorate more accurately and enable voters to have closer relationships with their elected representatives. Of course, all of these properties are also substantially affected by the choice of electoral system and other cultural factors; nevertheless, the fundamental tensions on the size of the representative body clearly increase as the overall electorate grows. The U.S. House of Representatives, currently at XXX members, is already far too large for each member to take a very active role in studying, debating, refining, and deciding any particular issue at hand; instead most members can only focus on one or two particular issues at a time, and for the rest merely listen passively to the arguments of others and cast votes on the basis of vague impressions, party alignment, or quid-pro-quo deals. Yet despite being the largest national representative body in the U.S., the House still contains only one representative for about every XX,XXX voters, making any real voter-representative relationship impractical and forcing campaigns to be based primarily on using mass media advertising to sway public image and play on currently "hot" issues rather than engaging in substantive dialogue with voters. The U.S. Presidential election, while often being given the most attention by voters and media alike due to the tremendous power and prestige the position represents, is so far removed from the personal domain of ordinary voters that most will never even see in person the candidates they are supposed to choose between. Completely apart from issues of corruption or entrenchment of political elites, the sheer numbers involved keep government far removed from the lives of ordinary voters.

As one way of addressing this problem, a certain degree of direct democracy is often grafted onto otherwise representative systems by way of popular initiatives, referenda, and recalls, allowing voters to participate in certain important decisions directly while leaving the vast majority of the day-to-day decisions to the elected representatives. While these mechanisms can help to keep the power of elected representatives in check, they are also subject to a variety of serious abuses [Bro00, Sch98]. It is highly questionable whether most voters can or will take the time study an initiative or referendum in enough detail to make an informed decision. Even initiatives that seem noble on the surface may effectively tie the hands of leaders, forcing them into ineffective "auto-pilot" policies and make them unable to adapt to changing conditions or social needs in the future. Furthermore, the anonymity of these popular decision-making processes can make the system much more susceptible to the temporary whims, selfish biases, and racial or cultural prejudices of local or regional majorities than the deliberative decisions made publicly by representatives, leading directly to the

very kinds of oppression that these mechanisms are often claimed to guard against.

1.3 Delegative Democracy

Delegative democracy accepts the premise that some form of representation is needed to minimize the burden on voters who are uninterested in or incapable of taking an active and well-informed role in the organization, but it challenges the basic premise that the number of such representatives must be kept small and relatively fixed, and that the number of candidates (or parties) a given voter may choose from for a given position must similarly be kept small. Instead, delegative democracy adopts the alternative premise that voters should have the widest possible direct choice of representatives, and that they should be enabled and encouraged to build personal relationships with their representatives, ideally involving some level of trust and rapport. A delegative system imposes no specific limit on the total number of representatives, which are referred to as delegates; and to facilitate direct relationships with voters each delegate ideally represents only tens or at most a few hundred voters, rather than thousands or tens of thousands. Furthermore, voters are not forced to compete with each other for representation within any kind of pre-defined districts or constituencies; instead, each voter's choice of delegate is essentially unrestricted across the entire breadth of the organization, and this choice acts as a direct transfer or delegation of power—hence the name delegative democracy. Anyone meeting certain basic qualifications can become a delegate, and while delegates may compete with each other for the votes of the electorate, they do not "win" or "lose" seats in an election. Instead, the voting strength each delegate commands in subsequent deliberation varies in proportion to the number of individual votes received. In other words, while delegative democracy retains the principle that every member of the electorate at large has uniform voting power, it discards the assumption that the members of the main elected body representing the voters must also have uniform power. Becoming a delegate does not by itself confer any representative power; it only indicates a willingness to act on behalf of others and a commitment to play a direct role in the operation of the organization and take responsibility for decisions made.

In a delegative democracy, each member of the electorate is independently given the choice of participating actively in the organization by becoming a delegate, or participating passively by delegating her individual vote to a delegate. Voters without the time or interest to play an active role are not forced to learn about and pay attention to distant candidates running for various specialized offices and representative bodies, or to study and think carefully about each of a long string of referenda in order to make responsible and well-informed decisions. Instead, passive participants merely need to know (or know of) a delegate close to them who they feel they can trust to look out for their interests. An individual can choose her delegate on whatever proximity basis she feels is most important to her, such as geographic locality, cultural or religious identity, economic situation, or other common interests. An individual's vote is never "wasted," as votes for losing candidates or parties usually are in a representative democracy. On the other hand, voters who want to take the time and responsibility to play a more active role in the organization are not forced to fight and win highly competitive and often expensive campaigns before being allowed any direct influence at all.

Obviously this fundamental paradigm shift raises many theoretical and practical issues. One problem is the sheer size to which a body of delegates could grow: for example, if implemented in a nation the size of the U.S., millions of delegates could easily be expected. Such a body could not hope to fit in a room and carry out a conventional deliberative process, and even getting them all in one geographic location or paying them full-time salaries could be prohibitively costly. Another problem is how to design deliberative processes to take account of the differences in voting power between delegates. Still another obvious issue is how voters are to choose among delegates on a ballot, and how those votes are counted: clearly a ballot paper listing potentially millions of names would be impractical. The rest of this paper explores these issues and others, and presents a variety of practical solutions and discusses their implications. However, it should be stressed that these solutions are merely suggestions: as with a representative democracy, any real delegative democracy will have to be designed and adapted to fit the particular organizational and cultural requirements at hand. The critical point of importance is not precisely how individuals become delegates or how delegates make decisions, but rather the basic principle that a voter's choice of delegate should be broad and unrestricted, and that this choice should be based on a personal trust relationship, or at least close mutual identification, rather than on campaign hearsay. Delegative democracy is about truly bringing power to the people without overloading those who do not want to wallow in the details.

2 Basic Principles

Richard S. Katz describes the suitability of electoral institutions as being dependent on "three mutually contingent considerations that may be summarized as who you are, where you are, and where you want to go." But these three considerations are at least as applicable to the needs of individual voters as they are to the needs of the overall democratic macrocosm. In the real world voters undeniably have vastly different levels of political awareness, interest, and capability. Almost everyone develops a fairly strong notion of who they are, or what other individuals and communities they identify with most closely. Far fewer people have a strong notion of where they are, or how their own values and situation compares with those of others throughout a society. And discounting vague platitudes such as "to be rich and famous," still fewer people have a strong, coherent, and practical vision of where they want to go or how to get there. Delegative democracy is built on the principle that a truly fair and effective democratic system must adapt to the widely varying needs of individual voters on a basis of individual self-determination, instead of imposing a fixed top-down design that places unrealistically uniform expectations on everyone. This section lays out in detail the core principles of delegative democracy, which can be summarized as follows:

- Choice of Role: Each member can choose to take either a passive role as an *individual*, or an active role as a *delegate*. Delegates have further choices as to *how active* they are and in what areas.
- Low Barrier to Participation: The difficulty and cost of becoming a delegate is small, and in particular does not require campaigning or winning a competitive election.
- **Delegated Authority:** Delegates exercise power in organizational processes on behalf of themselves and those individuals who vote for them. Different delegates exercise varying levels of decision power.
- **Privacy of Individuals:** To avoid social pressures or coercion, all votes made by individuals are private, both from other individuals and from delegates.
- Accountability of Delegates: To ensure accountability of delegates to their voters and to the community at large, all formal deliberative decisions made by delegates are public.
- **Specialization by Re-Delegation:** Delegates can not only act directly on behalf of individuals as generalists, but through *re-delegation* they can also act on behalf of each other as specialists.

In short, by pervasively applying the principle of selective and self-determined delegation of authority throughout an organization, delegative democracy empowers individuals to control precisely their own level and style of participation, and enables the "power of the people" to be transferred and focused where it is needed while maintaining the ultimate accountability of all principal actors. The primary power structures in a delegative democracy evolve in "bottom-up" fashion through the individual choices of members to participate or delegate, instead of being imposed "top-down" through fixed representative bodies.

2.1 Choice of Role

The first and most fundamental choice any member makes in a delegative democracy is the choice between taking a primarily active or passive role. A member who chooses an active role by becoming a delegate is expected to make an effort to understand the overall structure and operation of the organization, stay informed about the major issues the organization is facing, be familiar with candidates for and holders of important offices, make rational and well-considered decisions, and be willing to communicate and interact regularly with individuals and other delegates. Members who wish to remain in the more passive role of individuals can still participate in the democratic process, but their participation takes the much simpler form of *identification* with delegates who they believe have similar ideas and values as themselves, and who hopefully are familiar with their particular needs and concerns. In other words, the role of individual voter reflects and demands only the most basic level of political awareness, that of who you are, whereas the role of delegate demands some level of understanding of where you are and possibly of where you want to you

¹[Kat97], 308

2.2 Low Barrier to Participation

To maximize the chance that individual voters will be able to find delegates who they identify with closely and with whom they can interact directly, there should be no fixed limit on the total number of delegates, and it should be easy for anyone to become a delegate if they want to. In some situations a small barrier to entry might still be appropriate in order to ensure that would-be delegates are actually serious. For example, an individual might have to pass a short exam covering the basic principles and structure of the organization, which would be based on readily available public information. A delegate-to-be might also be required to collect endorsements from a few other (say, ten) individuals; these endorsements would not bind the individuals giving them in any way, but would merely serve to indicate that they consider the endorsee capable of acting as a responsible delegate. But the important point is that members do not compete with each other for the *status* of being a delegate; they only compete for the votes of individuals and for recognition from other delegates. Further, while the time and attention demands placed on delegates are necessarily somewhat higher than on those placed on ordinary individuals, being a delegate normally should by no means represent a full-time job. Anyone with the interest and a little free time should be able to serve as a delegate alongside their other duties. Any more substantial barrier to entry would unavoidably distort the "representativeness" of delegates and undermine the legitimacy of voter-delegate identification.²

2.3 Delegation

While participating in the deliberative processes of the organization, delegates speak and act for themselves and for those individuals who have voted for (delegated to) them. For this reason, different delegates will often wield widely different levels of voting power within the organization's deliberative processes, depending on how many individuals voted for them. The low cost of entry to becoming a delegate should ensure that most delegates don't accumulate inordinate amounts of voting power, since individuals who "follow" a delegate for a while are likely to split off, become delegates themselves, and try to attract their own following if the group they are in starts to become overly fat. However, since occasional "celebrity effects" can be expected, the system must ensure that the power of widely popular celebrities is counterbalanced by the larger numbers of "ordinary" delegates wielding smaller voting blocks.

2.4 Privacy of Individuals

To minimize the influence of social or peer pressures and the potential vulnerability to coersion, the actual votes of individuals are strictly private and anonymous, known only to the voters themselves. While the total number of individuals that voted for each delegate in a given election cycle is public knowledge, delegates cannot know exactly which individuals voted for them, though of course if they maintain a close relationship with their voters they may have some idea. This uncertainty of constituency, coupled with the fact that any particular "unsatisfied customers" can always change their votes or become delegates themselves next time around, should encourage delegates to think broadly and independently and to represent their community even-handedly instead of catering to the needs or demands of a specific few.

2.5 Accountability of Delegates

In contrast with the votes of private individuals, the votes and decisions of delegates are normally public knowledge. Thus, as the price of gaining the ability to speak for others and to participate in the detailed operation of the organization, delegates voluntarily relinquish their right to a secret ballot. This provision follows naturally from the principle of accountability, in two main respects. First, delegates must be accountable to their constituents: individuals who vote for and effectively transfer their power to a delegate must be able to watch that delegate's subsequent actions to determine whether the delegate is indeed acting

²This distortion of course plays a major role in current political systems, in which usually only those with highly specialized education, the right connections, and insatiable ambition have much of a chance at serving in a national representative capacity. Of course some will claim that the resultant effect of helping the established political elites hold on to their power is actually a good thing, for reasons of stability or ensuring "wise and well-educated" judgment or whatnot; but such paternalistic arguments seem unconvincing at the outset to anyone but those political elites, and in any case there are better and more democratic ways of achieving goals such as stability and well-educated decision-making.

in their interest. Second, delegates must be accountable to the larger community: even though any given delegate may not wield tremendous power, the option of using that power in secrecy to make important decisions can create an irresistable temptation to use it irresponsibly, even if only in small and unconscious ways. Accumulated over a large number of similarly-minded delegates, such temptations can be guaranteed to have a substantial negative impact. It is much easier to cast a vote reflecting internal biases and prejudices rather than sound judgment if one is not faced with the proposition of having to explain one's vote.

2.6 Specialization

The first-order duty of all delegates is to act as generalists: to look after all of the important issues affecting themselves and the communities they represent in a balanced fashion, even if this balance necessarily limits their depth of knowledge and level of participation in any one issue. However, any complex organization or society also requires a wide variety of specialists in different areas, and it is expected that many delegates will have particular areas of expertise or interest in which they are willing and able to devote additional time and attention. In the same way that the principle of delegation is used to transfer general authority from individuals to delegates, the principle of delegation is also used within the body of delegates to further transfer or re-delegate to each other certain kinds of specialized authority within specific areas of discussion or deliberation. Through ongoing interaction, delegates gradually learn each other's special areas of strength and interest, allowing them to focus most of their time and energy on their own areas of expertise while passing their voting power in other areas to other delegates who specialize in those areas. Even if a delegate does not feel competent to participate directly in certain specialized areas and does not personally know any other delegate who is, he may still re-delegate his voting authority in those areas to another delegate who perhaps has broader connections. In this way, delegates who specialize in a particular area can appropriately accumulate substantial levels of authority in that area, directly reflecting the specialized trust placed in them by other delegates. Of course, if this trust is violated, re-delegated authority can be revoked in the same way that an individual's original vote for a delegate can be revoked.

3 Delegative Organizational Structures

The previous section laid out the core principles on which a delegative democracy is built, in particular the principle of individually-determined delegation of authority. This section now delves into specific institutional structures that can be used to design delegative organizations along these principles. The tools for delegative organization presented here are treated only at a fairly high, abstract level: detailed discussion of specific, practical mechanisms and processes for implementing these institutional structures are left for Section 4.

Different types and scales of organizations will of course require substantially different organizational structures regardless of whether they are designed along principles of delegative democracy, traditional representative democracy, or simple hierarchical authoritarianism. However, it is useful first to divide an organization's structural components into two basic categories, which will be referred to here as directive versus executive structures. Directive structures are those whose primary purpose is policy-making: establishing the organization's general direction, defining the goals to be collectively pursued and overall principles to be applied, and so on. The organization's executive structures, in turn, are responsible for carrying out those policies and handling all the details of making the organization function in practice. These different roles typically require different organizational structures because the incentives for participation and the practical necessities of decision-making are quite different. An organization's directive structures could be said to be responsible for making the "easy, fun," open-ended decisions that members are more likely to want to be involved in, whereas the executive structures are responsible for carrying out the "grunt work" that would likely not get done if no one was assigned the task. In a traditional representative democratic organization, the board of directors or some equivalent usually serves as the primary directive structure, whereas officers elected to one or a few key positions (president, treasurer, etc.) define and manage the executive structure. In governments, the congress or parliament typically acts as the primary directive structure while the president/prime minister and associated cabinet heads the executive branch. In general, democratic values usually demand that directive structures be relatively flat and decentralized, in order to reflect the will of the membership accurately, whereas executive structures are kept hierarchical and centralized for the purpose of focusing responsibility for implementing policy and allowing more rapid response to unexpected situations.

While applying the principles of delegative democracy may have considerable effects on both types of structures, the same basic division between the two roles is still expected to be applicable. Since the directive role is the one in which delegative democracy appears to present the most potential for fundamentally transforming the way an organization works, delegative organizational structures designed for this role will be described first. Section 3.1 describes a radically unconventional directive structure for delegative democracy: the notion of a weighted participatory forum, which is a deliberative body open to direct participation by any and all of the organization's delegates, but in which different delegates can wield different amounts of voting power. Section 3.2 returns to slightly more familiar territory and describes how the principle of delegation can be applied, when necessary and appropriate, for the purpose of electing traditional deliberative bodies consisting of a fixed number of seats each carrying the same weight. Section 3.3 shifts attention toward executive structures, describing delegative mechanisms suitable for electing officers to single-seat positions. The remaining subsections then present useful refinements that can be applied to all of these decision-making structures.

3.1 Weighted Open Forums

3.1.1 General Forum

The most direct method by which a delegative organization might make top-level policy decisions, and probably the ideal method from the perspective of participationist democratic values, is by the direct gathering and deliberation of all the delegates. This method is essentially the delegative analog of pure direct democracy, the key difference being that in a delegative organization every member of the organization can choose whether to participate directly (by becoming a delegate) or hand off their voting power to another member who is a delegate. This form of delegative decision-making thus provides a solution to one of the traditional problems of organizations run by direct democracy: the "disenfranchisement of the impatient." Since most organizations are created and built around some basic purpose other than holding deliberative meetings to manage the organization, it is entirely natural that many members—often the vast majority—have limited patience for sitting through deliberative organizational meetings which inevitably tend to be long and tedious. With direct democracy, the only alternative to those without the patience or will to participate fully is to give up their vote entirely by not showing up, whereas delegative democracy gives them the power to delegate their votes to participating members who they trust to act for them by proxy. At the same time, making decisions in a delegative general forum ensures that all members of the organization who want to participate directly can do so, unlike traditional representative democracy in which only those candidates who win competitive elections can do so.

In order to make a participatory general forum work in a delegative context, conventional deliberative processes must be adjusted somehow so that different delegates can carry different "weights" in the forum depending on the number of members at large supporting each one. This weighting of the delegates might only affect how votes are counted, or it could also be made a factor in the process of moderating debate so that delegates with more voting power also get more time or opportunity to speak. Some specific approaches to handling such delegative assemblies are described later in Section ??.

In the same way that pure direct democracy becomes impractical as the number of directly participating members grows too large, a single delegative general forum may become difficult to run effectively if the total number of delegates is very large or they are highly geographically distributed. Thus, this approach may be primarily appropriate for relatively small and centralized organizations. However, since the number of delegates in a delegative organization can typically be expected to be much smaller than the total number of members, in practice this approach should at least work in any organization for which ordinary direct democracy is practical, and perhaps in many somewhat larger organizations. Further, modern omputing and networking technology might be able to make deliberative gatherings practical for a much larger number of delegates than traditional approaches.

3.1.2 Specialized Open Forums

In a large and complex organization, the number and variety of policy decisions that must be dealt with is typically much too large for it to be practical for any one person, let alone all of the members—or even all of the delegates—to be directly involved in every decision. The responsibility for making these policy decisions must somehow be partitioned so that different members or subgroups within the organization can work independently and with some level of autonomy. For geographically distributed organizations, geography usually acts as one of the ways in which policy decisions are partitioned: such organizations usually retain some policy-making power centrally but defer most of the details to regional or local bodies. If each of these local entities is small enough, then this level of partitioning may be sufficient; otherwise, further division of policy-making authority is required, typically along functional lines. In organizations designed along traditional lines of representative democracy, usually a few key top-level positions are elected by the membership at large (e.g., president/chair, treasurer, board members). The people holding these top-level positions in turn are responsible for managing the rest of the organizational structure the rest of the organizational structure, which usually takes the form of a hierarchical bureaucracy of some kind. There are of course many variations to this structure. For example, more decentralized organizations often hold elections for key regional or local positions as well as those at the top level. Many organizations attempt to increase democratic participation by encouraging members to get involved directly in various activities carried out by the organization, either on a paid or volunteer basis. Sometimes temporary or permanent committees of members are created, either on a self-selecting basis or by appointment by top-level officials, for the purpose of exploring specific issues or addressing certain needs. Nevertheless, the essential structure of any large traditional "democratic" organization is still usually that of a bureaucracy managed by a few key elected officials.

Delegative democracy provides a viable, and potentially much more democratic, alternative method of dividing policy-making authority to the traditional bureaucratic structures. The key idea is to divide policymaking authority within the organization into a number of specialized forums, usually along geographic and/or functional lines in essentially the same way that a traditional bureaucracy might be. These specialized forums are in theory open to participation by all the delegates in the organization, but it is expected that usually only a small fraction will choose to participate directly in a given specialized forum: delegates choose which forums they participate in based on their own interests, expertise, and time constraints. However, by re-applying the principle of delegation within the organization's body of delegates, those delegates who cannot or do not want to participate in a particular forum can instead participate indirectly by delegating their vote in that forum to another delegate of their choosing. A delegate can hand off her vote to a different person in each such forum, or delegate to the same person in a whole group of forums. This way, the accumulated voting power of many delegates can be directed and focused differently in each specialized forum through the individual decisions of each delegates. Delegates are free to determine their own level of participation in every aspect of the organization's operation, and avoid becoming overwhelmed or overburdened even in a large and complex organization, by participating directly in forums most closely related to or affecting them and in other forums delegating their vote to others they trust.

For example, Figure 1 illustrates a small delegative organization with four open forums: a general forum and three specialized forums. All delegates in the organization participate directly in the general forum, in which top-level decisions are made affecting the entire organization and which cannot be easily categorized into one of the specialized forums: in this case there are six delegates, shown in the "General Forum" box along with their relative voting strength (as usual, based on the number of non-delegates each delegate represents). Each delegate then chooses individually which of the specialized forums to participate in directly, and for each forum in which they don't participate, which other delegate to transfer their voting power to. In this case, Jim and Aimee form the "projects" forum; Melanie, Aimee, and Claire have joined the "finance" forum; and Bob and Claire are the participants in the "outreach" forum. Note that Aimee is participating in three different forums, whereas Tim has chosen to participate only in the general forum. Finally, each delegate chooses how to delegate their voting power in the forums in which they are not participating directly (shown in the diagram with arrows). For example, even though Tim is not participating directly in any of the specialized forums, he has chosen to delegate his voting power in "projects" and "finance" to Aimee, and in "outreach" to Bob. Bob, on the other hand, has delegated his voting power in "projects" to Jim, but is neither participating or delegating his vote in "finance," effectively abstaining so that his voting power is not

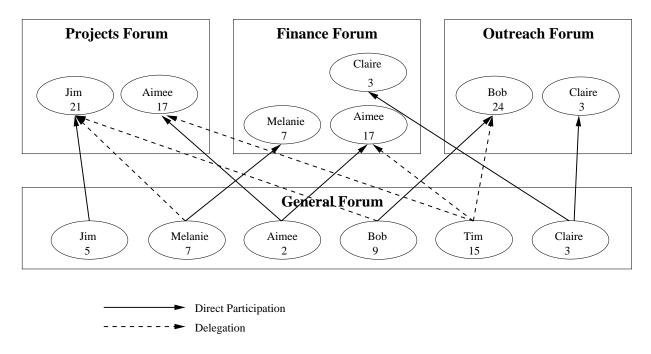


Figure 1: Illustration of Delegation among Specialized Forums

used at all in that specialized forum. (For example, he might not not know any of the participants in that forum well enough and thus prefer to avoid changing the balance of power). The resulting voting weights for each of the delegates participating in each of these forums are shown under their names, accounting for both the voting blocks they controlled in the general forum and the voting shares they have been delegated in the specialized forums.

The specific organizational structure illustrated in this figure, presumably resulting from the independent decisions of all six delegates, has some notable flaws which reveal certain dangers in this system of delegation. First, two of the specialized forums contain only two delegates. Any "democratic" forum containing exactly two voting members is inherently problematic: if the votes were unweighted, then the decision-making body could never make any decisions in the event of disagreement because they would always result in a tie; in this case, since the participating delegates are weighted, the body will still be functional but the delegate with the greater weight will always carry every vote and the other will be marginalized into an effectively "advisory" role. Furthermore, even in the Finance forum in this example, in which three delegates are participating, nevertheless due of Tim's delegated votes Aimee can exclusively determine any vote decided by simple majority (though she would require the backing of one of the other delegates to carry a two-thirds supermajority vote). Thus, at least theoretically there is an important danger that allowing delegation of voting blocks between delegates in specialized forums could cause unexpected and potentially problematic imbalances of power. This danger is mitigated by two factors. First, although the number of delegates in the example organization is purposely kept small for the purposes of illustration, it is to be expected that in any real delegative organization special forums would not be created in the first place unless there are enough delegates who want to participate in it to ensure a reasonably healthy and diverse deliberative process. It may be appropriate for an organization to institute a rule whereby if the number of delegates participating in a specialized forum drops below a certain point (i.e., if interest wanes too much), then that specialized forum is automatically dissolved and the decision of the policy issues for which it was created reverts to some other more general forum. Second, although delegation can indeed cause or reinforce large disparities in voting weights between the delegates in a forum, these disparities are not necessarily a problem if they accurately reflect the will of the voting membership. In this example, if Tim is by far the most widely trusted delegate among the membership at large (swinging 15 votes), and he trusts Aimee to make decisions on finance matters even though by herself she only swings two votes, why should these trust relationships not be reflected in the operation of the finance forum? If any of the individuals backing Tim disapprove of his decision to delegate to Aimee in this forum, then they can always switch their votes to another delegate: unlike most representative democracies, especially those based on single-member plurality representation, voting for a less popular delegate never constitutes a "wasted" vote. Alternatively, more of the other delegates can choose to participate in—or delegate their votes to other participants in—the Finance forum, so as to "gang up on" Tim's power as Jim, Melanie, and Bob have done in the Projects forum.

In any sufficiently large and complex representative body, alliances and agreements in some form inevitably play an important role in the democratic policy-making process. For example, representatives who have different overall goals and interests but who generally agree in a certain area of policy need to be able to pool their resources for effective action in that area. Similarly, representatives who have a strong overall trust or identity relationship but who specialize in different fields are more effective if they can cooperate to lend each other support across all of these fields. In traditional representative governments, political parties form the broadest and most durable form of alliances, while inter-party coalitions often become important in multi-party systems, and temporary alliances are often formed among representatives across party or coalition boundaries for particular issues at hand. However, by dividing policy-making power among specialized delegative forums and formalizing the relationships among them through delegation of votes, delegative democracy provides a method of facilitating these necessary alliances while providing an unprecented degree of organizational transparency. Since in accordance with the basic principle of accountability all formal decisions made by delegates must be visible to the membership, examination of the delegative structures among general and specialized forums can provide delegates and members alike with a very rich source of information about exactly what is happening in the organization. No delegate is denied the right to participate actively in any forum, but through delegation those who are especially active and proficient in a particular forum can accrue larger blocks of formal voting power reflecting the trust and recognition placed in them by their peers.

3.1.3 Delegating Delegation Decisions

Although division of policy-making into specialized delegative forums may go a long way toward making participatory delegative democracy feasible for much larger organizations than might otherwise be practical, nevertheless it is conceivable that an organization—e.g., a government—might be so large that it is impractical for delegates even to keep track of all the specialized forums, let alone to develop meaningful personal trust relationships with the delegates participating directly in those forums in order to be able to make good delegation decisions. Similarly, it might be impractical to expect every delegate to participate directly in even one top-level "general forum," even after most of the policy-making has been removed to more specialized forums. In such a situation, it may be necessary for a delegate to be able to hand off to other delegates not only their participatory roles, but also some of their delegative decisions themselves across some range of forums.

For example, suppose one delegate generally prefers to act as a specialist, concentrating on remaining particularly active and proficient in one or a few highly specialized forums, perhaps to the detriment of her proficiency in or even knowledge about the delegates participating in most other forums. But suppose she has a close trust relationship with another delegate, who she knows is not highly proficient in any particular field or or highly active in any specialized forum; but nevertheless she knows that he in turn has close trust relationships to many other delegates participating in other forums in diverse fields, and has a strong sense of who is most proficient and trustworthy in which forums. In other words, she, the specialist, trusts his abilities as a strong generalist. In this case she might want to participate in only those few forums in which she specializes, and delegate her voting and delegation power in all other forums to the generalist of her choice. This generalist, in turn, may participate directly in very few of these other forums—perhaps none of them—but will re-delegate her voting power in those forums, aggregated with his own and any he has received from other delegates, to other specialists of his choosing in each of those forums.

In a large and complex organization, the generalist role—merely knowing who knows best about something—is often as important a function as the specialist role of being able to make good decisions in any particular area. In traditional large democratic structures, where elected officials in key positions manage a hierarchical bureaucracy of some kind, most of those elected positions are effectively "generalist" positions by practical necessity. Ordinary voters do not have the interest level or patience required for electing appropriate people to a large number of specialist positions, and most would not have the knowledge or connections required

to make good decisions about those positions anyway. Therefore, specialists can usually only participate in a large organization by being appointed or hired into a position in the un-elected bureaucracy, and for this reason are always effectively subservient to the generalists who choose them. For this reason the entire field of "politics" has effectively become a profession of generalists, in which very little technical knowledge in any particular field is required or expected (except perhaps law), but in which the most important characteristic of a candidate is the ability to look good, speak well, and make the right connections. But it seems unfortunate and problematic that all specialists are effectively excluded from direct participation in the democratic process except in roles that are strictly subservient to the generalists: at the very least, this structural pathology certainly contributes to the frequently observed tendency of politicians to "legislate" highly technical issues without adequate consultation with the experts in the appropriate technical field—or with a selection of "experts" that is highly skewed for political reasons—often with disastrous results. On the other hand, it can be even worse if the "subservient" specialists in a traditional "democratic bureaucracy" gain too much power over time, e.g., due to the weaknesses or ignorance of the officials elected to manage them, and come to be able to "back-manage" the elected officials effectively from their stable, un-elected positions. Delegative democracy with open specialized forums and re-delegation provides an alternative structure that enables both generalists and specialists to participate directly in the democratic process as first-class policy-makers. Widely recognized and trusted generalists are given the legitimate ability to affect the balance of power in specialized forums by directing delegated votes to chosen specialists, while the specialists participating directly in those forums also retain the ability to build their own independent power bases and thus not be completely at the mercy of the generalists. At the same time, since generalists and specialists alike are direct participants in the democratic process, they have the same fundamental rights and responsibilities and are all held accountable to all of their constituents (i.e., those who delegate votes to them) in the same way.

3.1.4 Hierarchical Organization of Forums

In order to make re-delegation work well, it is important that the specialized forums comprising a large organization's policy-making bodies are arranged carefully and systematically, so that delegates can treat related forums as a group when appropriate to make effective participation and (re-)delegation decisions. One natural approach is to arrange all forums in a hierarchy or tree structure. For example, suppose the hypothetical organization of Figure 1 grows so that each of the three policy-making areas (projects, finance, and outreach) need to be further subdivided. This arrangement might be accomplished as illustrated in Figure 2, by creating additional "second-level" specialized forums as subsidiaries of the existing "first-level" specialized forums. For example, second-level forums are created under the "projects" forum for specific ongoing projects the organization is involved in, while retaining the existing first-level projects forum for general project management issues such as the creation or dissolution of projects. A delegate whose primary interest lies in one particular project might choose to participate only in the corresponding forum while delegating to a trusted generalist all voting and delegation decisions for other forums in the hierarchy "by default." Another delegate might choose a semi-specialist role of "project coordinator" by participating directly only in the first-level "projects" forum, while directing his voting power in the second-level forums specific to particular projects to other delegates specializing in those respective projects, and directing any voting power he may have in other branches of the organization to a trusted "top-level generalist." Such a hierarchy of incrementally specialized forums effectively allows delegates to choose a wide variety of useful roles along a specialization continuum, or even a combination of different roles, and facilitates effective and democratically legitimate transfer of authority both "upwards" and "downwards" in the hierarchy to ensure that the delegates who are most widely trusted (directly or indirectly) in their chosen roles become those who directly wield the most decision-making power in the forums they choose to participate in directly.

3.2 Unweighted Representative Bodies

The delegative democratic structures discussed so far have all been built on the assumption that actual policy-making decisions can be carried out by weighted representative bodies in which different delegates can exercise different amounts of voting power. This kind of forum appears to be the most consistent with the basic principles underlying delegative democracy, because it allows for democratic distribution of

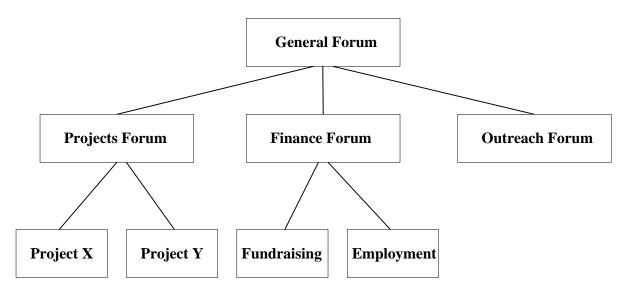


Figure 2: Hierarchical Organization of Specialized Forums

representative power without denying anyone the right to participate in the deliberative process. Delegates do not "lose" the opportunity to participate as candidates do in traditional elections; they merely win to varying degrees. Nevertheless, the notion of a weighted representative body may be impractical in some situations, for example because the total number of delegates who wish to participate directly in a given forum is simply too large, or weighted participation may simply be perceived to be too radical a departure from the norms of democratic decision-making for immediate adoption in established organizations. In any case, the principle of delegation can still be applied effectively for the election of representative bodies in which the number of elected representatives is limited beforehand, but once elected each representative carries the same decision power in the body. The scheme presented here has striking similarities to the Single Transferrable Vote (STV) system used for popular election of representatives in Ireland and a few other countries, though with a few important differences.

Suppose that in a delegative democratic organization, the delegates have already selected themselves, and a popular vote among the entire membership has been used to assign weights to each of the delegates. Now out of the organization's full body of delegates, suppose some fixed number are to be elected to form a smaller unweighted representative body. All delegates who desire seats in this body first identify themselves as candidates for that body; this subset of delegates may still be very large compared to the number of seats to fill, possibly even constituting a majority of the delegates. Finally each delegate, candidate or not, registers his vote by indicating the single other delegate who he thinks is best deserving of a seat in the elected body. Votes do not even have to be for candidates: when one delegate votes for another delegate who is not a candidate, he is simply delegating his choice to the latter delegate, voting indirectly rather than directly. When one candidate registers a vote for another delegate, the latter delegate is said to be the former's alternate: the person to whom the candidate's votes will be transferred (delegated) if and when he is eliminated from the election process. Thus, the actual voting process is very simple and uniform, consisting of a single categorical vote, though the number of alternative options each delegate has in placing that one vote may be very large (i.e., the size of the entire body of delegates) since there has been no attempt either to restrict the number of candidates through some nomination process or to divide the electorate into pre-defined districts or constituencies.

The votes are then counted and candidates elected to the available seats as follows. First the entire list of delegates is sorted according to their candidacy and then their established voting weights: all candidates are sorted above all non-candidates in the list, and within each of these two sections those delegates with greater voting weight are placed above those with less, with ties broken randomly. Then a Droop quota is calculated to determine the number of votes a given candidate requires in order to be deemed "trivially elected," using the following formula:

$$Droop\ quota = \frac{Total\ number\ of\ valid\ votes}{Total\ number\ of\ seats + 1} + 1$$

The total number of valid votes is simply the sum of the weights of all the delegates who cast votes in the election. Now the list of delegates and their voting weights is reduced in a step-by-step process, one item at a time, as long as there are too many candidates for the number of unclaimed seats. In each step, the topmost candidate on the list is first checked to see if he has enough votes to be trivially elected: i.e., if he has at least the number of votes as the quota calculated above. If so, this candidate is assigned a seat, taken off the list, and any votes he has beyond the quota are transferred to the delegate he voted for (his alternate). The list is then re-sorted as necessary to account for this change. If the candidate elected did not vote for an alternate, then his additional votes are lost. If, on the other hand, the topmost candidate on the list does not have enough votes to satisfy the quota, then the very bottommost delegate on the list is instead selected for elimination. The selected delegate will of course be a non-candidate unless the list has been narrowed to the point at which only candidates are left. The selected delegate is removed from the list, all of the his votes are transferred to the delegate he voted for, and the list is re-sorted to account for the change in the same way that the excess votes of elected candidates are transferred. This process then repeats until all the seats are full or enough unclaimed seats are available for all the candidates remaining on the list.

The key beneficial characteristic of this scheme is that it not only automatically takes account of the varying weights of different delegates, but also helps to ensure that every vote counts in the election process. Any vote that would otherwise have been "wasted" in a more conventional election scheme—e.g., a vote for a non-candidate, a vote for a candidate that is not popular enough to win a seat, or a vote for a candidate that is "too popular" and might otherwise draw needed support from other closely allied candidates—nevertheless has the chance to affect later stages of the election process according to delegation relationships. This transfer mechanism also has the potential effect of making the resulting election process seem complex and highly non-linear. But as long as the process can be made practical (which it can be, as discussed later in Section 4), this complexity is not necessarily a bad thing as long as it accurately reflects the real relationships and trust patterns of the delegates.

3.2.1 Vote Transfer to Eliminated Delegates

One important detail of the vote counting process that was not discussed above is what happens when a delegate is eliminated from the list (either from the top or the bottom), if the delegate to whom votes are to be transferred has already been eliminated from the list. One alternative is for such votes simply to be lost. Another alternative is try in turn to transfer those votes according to the vote of that already-eliminated delegate, and thus to keep following the "delegation chain" until a delegate is reached that either has not yet been eliminated, did not cast a vote, or has already been encountered (reflecting a circular delegation relationship). In the first case, the votes are ultimately transferred successfully; in the other two cases, they are effectively lost and play no further role in the election process. Thus, some additional robustness against the premature loss of votes can be gained at the expense of additional complexity in the transfer process. However, even better robustness against lost votes can be achieved, while at the same time giving delegates greater flexibility in their choices, by making certain refinements to the way delegation choices can be made. Since these refinements apply equally well to weighted delegative forums as to delegative elections, they are discussed separately below in Section 3.4.

3.2.2 Similarity to STV

Those well-versed in electoral systems will immediately notice that this scheme is almost identical to Single Transferrable Vote (STV), with one important difference. In STV and similar "ordinal" voting systems, each individual voter is expected to vote for a number of candidates, possibly all of them, but to specify an order of preference among them on the ballot. In this delegative election system, on the other hand, each vote is categorical—indicating only a single choice among a number of options—but each delegate's ballot *implicitly* defines an ordinal list according to the votes placed by the other delegates. For example, for a given ballot, each voter's second-choice candidate is implicitly determined by the vote placed by her

first-choice candidate, her third-choice candidate is determined by her second-choice candidate, and so on. In this way, delegative elections combine the fairness and proportionality advantages of STV with the simplicity of categorical ballots.

One practical effect of this difference is that when a candidate exceeds the quota and is deemed trivially elected, there is no longer a subtle issue of *which* of the ballots beyond those required to fill the quota are to be retained and transferred. In STV, since the voters fill out the ordinal lists themselves, the ballots that wind up in the elected candidate's "pile" may differ in their next-choice candidates, making it possible that the outcome of the election will be affected merely by the way in which the elected candidate's pile is divided between votes used to fill the quota and votes to be transferred. In a delegative election, on the other hand, since the next choice is determined by the vote of the elected candidate rather than by the ballots themselves, all the ballots are essentially equivalent at that point and there is no such problem.

Of course, proponents of STV or other "multiple-choice" electoral systems might criticize this scheme on the grounds that it reduces the choice of the electorate by eliminating the voter's ability to indicate anything but her first-choice candidate directly. However, there are several counter-arguments balancing this concern. First, in practice voters in ordinal-choice electoral systems often take the recommendation of their first-choice candidates in arranging the rest of their list anyway. Second, voters making ordinal lists are not likely to pay as much attention to the relative arrangements of candidates farther down on their lists, partly because it is inherently not very fun or rewarding to think about and make decisions among highly undesirable choices, and partly because voters simply tend to pay more attention to candidates they trust and agree with and therefore place at the top. On the other hand, candidates who are actively seeking positions are likely to have much better knowledge of the characters and platforms of the other candidates they are directly running against simply out of the need to keep track of their opponents. Thus, it is arguably more appropriate in the first place for the lower choices on a voter's list to be determined by his upper-choice candidates rather than by the voter himself. Third, making the ordinal preference list implicit in this way is a key factor in making it practical to hold elections among a very large number of candidates sharing "one big constituency," which was envisioned as a theoretical ideal for STV but never put into practice because of the impossible size of ballots that would be required. Finally, for delegates who really do want more direct control over how their votes are transferred, the refinements discussed later in Section 3.4 provide similar control without compromising the generality and scalability of the system.

3.3 Single-Seat Elections

All of the preceding discussion of delegative democratic structures has focused on deliberative policy-making bodies, in which the most important goal to be achieved is carefully-considered (i.e., "deliberate") decision-making that to some reasonable approximation reflects the will of the electorate. However, for many other organizational tasks, particularly the day-to-day responsibility of holding the organization together and implementing policy that has already been decided, much more centralized structures are usually needed which can directly respond to immediate needs without extensive deliberation. Further, since such jobs often to a substantial degree amount to dealing with routine administrative matters and "red tape," there may be far fewer people who would want the job anyway. Finally, as long as the actions of management are fully visible to the electorate and the electorate has the power to replace the management if it fails to perform its duty, the principle of accountability actually favors centralized management structures for executive powers, because centralization makes it very clear who is to blame for failures. Therefore, in one way or another, single-seat elections are still likely to play a critical role in delegative democracy as they do in traditional representative democracy.

The multi-seat delegative election system described in the previous section can be readily used for the purpose of single-seat elections simply by taking the "total number of seats" to be one. The Droop quota then reduces to $Total\ number\ of\ valid\ votes/2+1$, the number of votes required to constitute a simple majority. There may still be a large number of candidates for the position, and as before delegates can even vote for non-candidates as their first choice. The votes are counted as above, with the elimination and vote transfer process ending either when some candidate receives a majority of the votes (the quota) or when only one candidate is left on the list. This election system is therefore merely the delegative analog of Instant Runoff Voting (IRV), the single-seat adaptation of STV, with the voters' ordinal preference lists defined

implicitly by their first choices rather than explicitly.

3.4 More Powerful Delegation Choices

In the discussion so far it has been assumed that when a delegate chooses to transfer his voting power—either within a particular weighted forum, across a range of forums, or as part of a single- or multi-seat election—he merely chooses exactly one other delegate to whom his entire voting block is to be transferred. While this restriction keeps the choice simple, the resulting system suffers from two significant problems. First, if the delegates do not coordinate their votes carefully, their independent delegation decisions may easily produce pathological circular delegation patterns (e.g., one delegate hands off his votes to a second, who tries to hand them back to the first, and so on). Second, restricting delegation decisions to "all-or-nothing" choices, especially across multiple indirect transfers of voting power, can potentially cause large numbers of votes to become highly concentrated in the hands of a few particular delegates. Both of these problems can be solved by extending the range of choices available when delegates make a decision to delegate voting power.

Three such extensions are discussed here, either or both of which can be made available to delegates to utilize at their individual choice, separately or potentially even in combination. The first extension allows delegates to list multiple delegation choices in preference order, so that the second choice is used if a transfer of votes to the first choice fails, the third choice is used if the second choice fails, and so on. The second extension allows delegates to *split* their voting block among a number of other delegates, either evenly or in proportion to assigned weights. The third extension, when combined with either of the first two, allows a delegate to specify whether voting power (provisionally) transferred to another delegate can be further (re-)delegated to someone else. Taken together, these extensions can provide delegates with a very rich set of alternatives for expressing preferences and formalizing their trust relationships. Of course, the question quickly arises of just how much choice is "too much of a good thing," because of both the burden it may place on delegates and the complexity of implementing the resulting system. However, these pragmatic issues are dealt with later in Section 4.

3.4.1 Backup Choices

The first obvious refinement to the way delegates might want to transfer their authority is by specifying one or more "backup choices" to be used if for any reason their voting power cannot be transferred to their first choice. For example, suppose two closely-allied candidates are both seeking seats in a multi-seat representative body. They would both like to win seats if they can muster enough support; failing that, they would like to maximize the potential for at least one of them to gain a seat; and failing that, they would like all of their aggregate voting power to go instead to support some less ideal "third-party" candidate. However, under the single-choice delegation system it is impossible for them to represent this set of preferences accurately; instead they must make one of the following strategic choices:

- If both delegates each "vote their conscience" independently, they will each cast a vote for the other, their natural first choice. This circular voting pattern will have the desired effect of maximizing their own chances as long as the two have enough combined support to win at least one seat. However, if they do not achieve this level of support, then all of their votes are effectively lost and can play no further role in the election process. Even if one or both of these candidates do win a seat, any extra votes they may have had beyond the quota required to elect them will not be transferred to their third-party choice.
- On the other hand, the two candidates could coordinate so that the one expected to have the smallest support base delegates to the one with the larger support base, and the latter delegates to the desired third-party candidate. This strategy will break the circularity and achieve the desired effect as long as their guess as to which of them has the larger support base is correct. If their guess is wrong, however, then the second delegate, whose support base was thought to be larger but was actually smaller, will be eliminated first, causing his votes to be transferred immediately to the third-party candidate without giving any support to the other primary candidate.

This example demonstrates that circular delegation arrangements can be quite natural in expressing real trust and identity relationships, but simple single-choice delegation effectively forces delegates to line themselves up into a somewhat arbitrary hierarchical "pecking order" in order to work the system and ensure that their votes are not lost.

The natural solution to this problem, of course, is to allow delegates to indicate multiple delegation choices in order of preference, so that when their votes are transferred, each alternative path is tried in turn until one succeeds. In the example above, the two closely allied delegates would indicate each other as their first-choice votes, and indicate the chosen third party as their second choices. This arrangement will ensure that all of their votes are kept within their pairwise alliance for as long as either of them still stand to benefit from them, while allowing any votes remaining after both of them are elected or eliminated to "escape" to their their third-party alternate. This arrangement can be similarly applied for alliances of more than two candidates, though not as naturally and requiring some cooperation by arranging for all of the first-choice votes in the alliance to form a single larger circular delegation pattern. (Split delegation, described later in Section 3.4.2, provides a more natural method of expressing larger alliances.)

It is of course ironic that the adaptation of STV to the delegative election system essentially amounted to the elimination of voting preference lists by defining the lists implicitly according to the votes of the first-choice candidates, whereas the extension described here essentially serves to bring the list back again. However, the preference lists in the two systems effectively perform substantially different functions. In STV, the primary purpose of the preference lists is to allow votes for candidates who cannot win to remain "in play" and affect the outcomes for candidates who can win. In delegative elections, on the other hand, this function is served by the re-delegation of votes from one candidate to the next, while preference lists serve the much more subtle and periphery role of giving the system greater robustness against certain voting patterns that would otherwise cause re-delegation to "fail" and votes to be lost. STV is generally only practical when there are only a few candidates to choose between; in a delegative election among so few candidates circularity is not likely to be an issue at all. The circularity issue only arises because of the basic paradigm shift enabled by delegative elections, in which many votes for very few candidates is replaced with many votes for many candidates and/or re-delegation "intermediaries." Thus, preference lists play a much smaller and more focused role in delegative elections, and in practice there is probably no harm done if the vast majority of delegates merely indicate a first choice and leave it at that.

Finally, although the motivating example above focused on the case of delegative elections, the circularity issue and the usefulness of the ability to indicate backup choices also applies to the process of distributing voting power to participants in weighted forums—especially if there are many forums in the organization and voting power is often delegated to specialists in complex arrangements involving multiple generalist "intermediaries." These intermediaries may form circular delegation structures, either by accident or by design. For example, a group of delegates might want to form an alliance across a range of forums so that their voting power within a given forum will be kept within their alliance as long as at least one member of the alliance chooses to participate in that forum, while allowing voting power for forums in which none of the members are participating to "escape" to some third-party generalist for further distribution.

3.4.2 Split Delegation

Although allowing delegates to indicate backup choices for delegation decisions provides a workable solution to the circularity problem, it does not address the potential problem of over-concentration of voting power that may result when all of a delegate's votes in a given forum or election can only be transferred as one large "bundle." This problem is likely to become especially severe when voting power is passed successively through one or more levels of generalist intermediaries to specialists they know in particular weighted forums or elected bodies. Since many delegates can transfer votes to a single recipient, these generalist intermediaries may accrue very substantial blocks of voting power, and if they have no way to split it apart before delegating it to specialists they may effectively be forced to confer a huge power advantage to one of a number of specialists who they perceive to be nearly equally qualified. The only way to rectify this problem would be to delegate their accumulated voting power alternately to several different specialists over time; however, especially when the possible effects are considered of several generalists making decisions independently each cycle, this approach could create unpredictable "whip-lash" effects in which one or a few specialists in a forum instantly gain practically unchallengeable authority for a short period only to lose it again just as

quickly. For this reason, it is clearly desirable for delegates who might accrue large voting blocks at least to have the *option* of splitting their voting blocks appart and delegating different parts to each of several recipients.

The most flexible and probably ideal way to provide this choice is to allow each delegate to list several other delegates to whom voting power is to be transferred, along with an arbitrary weight to be assigned to each one. After normalizing the weights so that they sum to 1, the resulting weights indicate the fraction of the delegated votes to be transferred to each recipient. This weighted delegation scheme thus allows intermediaries to spread their voting blocks among several specialists in whatever fashion most accurately reflects their relative knowledge of or trust in each recipient.

If it is impossible to transfer votes to one or more of the recipients indicated on a vote-splitting list, for example because the recipient has already been eliminated from an election or because the transfer would be circular, then the "invalid" recipients should be removed from the list before the weights are normalized so that all of the votes will go to valid recipients. As long as this provision is handled properly, weighted splitting of voting blocks also provides an alternative approach to handling the circularity issues discussed in the previous section which may be a more natural to formalizing larger alliances. For example, suppose five closely-allied candidates are each seeking seats in a multi-seat elected body. Using preference lists, the allied candidates would have to form a circle with their first-choice votes while delegating to a less desirable third party with their second choices. However, with vote splitting, each of these delegates could instead simply indicate all of the other allied candidates in addition to the third-party candidate on their lists, giving large weights to each allied candidate and a very small weight to the third party. Such an arrangement will ensure that, regardless of the order in which the allied candidates are elected or eliminated during the vote counting process, almost all of their collective voting strength will be kept within their alliance—until all of the allies have either been elected or eliminated, at which point any remaining votes will go to the third party.

3.4.3 Restricted and Transitive Delegation

A final extension to the delegation choices that an intermediary may find useful is the ability to define whether delegated voting power can only be used directly by the indicated recipient or can be re-delegated to another recipient. The discussion so far has generally assumed that the authority to participate in deliberation using delegated voting power is equivalent to the authority to re-delegate that power to someone else. However, many people are likely to object to this assumption in principle, and in practice there may be situations in which delegates wish to exercise more fine-grained control over the way their votes are transferred.

For example, in a single-seat election, suppose a delegate indicates a particular first-choice candidate, but also wants to indicate a second-choice candidate different from the first choice of his first-choice candidate, who will receive his votes if his first choice doesn't win and not just if his first choice leads into a circular voting pattern. To accomplish this, the delegate could list both first and second choices on a preference list, and then restrict the first choice to be non-transitive. In effect, this restriction allows delegates to re-gain the direct expressiveness of the original STV system, while still making it possible for votes to remain in play and follow implicitly defined preference paths even if none of the directly indicated candidates can win, as long as at least one of the delegation choices is transitive.

Such a restriction may similarly be useful for delegation of voting power to participants in specialized forums. For example, a generalist might delegate a voting block to a certain specialist across a group of forums, but use the non-transitive restriction to ensure that the recipient only gets the use of those votes in forums in which he participates *directly*. In any other forums in the group in which the recipient does not participate, the delegated votes would effectively be automatically revoked and could be redistributed to someone else instead of allowing the original recipient to determine how the votes are re-delegated.

The choice to restrict re-delegation of delegated voting power introduces a number of subtle issues, both in delegation among weighted forums and in delegative elections, that are not explored further here. Because of this subtlety it may be expected that this choice, if it is made available, will generally be used only by a few delegates who are particularly knowledgeable about the system and are willing to go to special lengths to "optimize" their voting power or manipulate the system to their advantage. This fact alone may be a compelling argument against providing this choice at all, and since there appears to be no fundamentally critical necessity for it, this feature may be worth thinking about but probably best left out of real delegative systems at least until it is understood more thoroughly.

4 Implementing Delegative Democracy

Under Construction

5 Delegative Democratic Government

Under Construction

6 Conclusion

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