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A Little Mathematics of Radical Action

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$$f(x_1, x_2, x_3) > f(x_1) + f(x_2) + f(x_3)$$

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2024/05/17

<https://unravel.noblogs.org/a-little-mathematics-of-radical-action/>

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2024/05/17

realizing, "organizers" will push people into subadditive modes of action (big masses), when even additive modes (individual) would have been better. One hundred individual window smashers acting autonomously throughout a city are likely much more intimidating than a big group of 5 window smashers and 95 smashers without windows.

This doesn't just apply to stealing or breaking things. What if you have 3 punks each playing their own solo folk punk songs? Well, if they play in a sequence, you've got an (additive) show. Now suppose one likes drums, one bass, and one guitar. You've got a (superadditive) band! Or, what if they want to form a band, but they all want to play guitar? Maybe it will work, or maybe it will sound like (subadditive) shit.

Keep in mind that not all superadditivity is necessarily good. For example, industrial capitalism is a highly superadditive mode of production: division of labor makes every person able to perform intricate tasks that none could otherwise do, and each person's labor fits into a whole that results in products that could not otherwise be created. With specialized complementary skills, each laborer is made as close as possible to an automaton (and often people are just replaced with machines directly). This results in automatony rather than autonomy.

Complementarity versus Compositionality

Finally, there's a big difference between complementarity based on affinity and desire, versus tolerating each other and cooperating to reach a common end. The former has means-end unity, while the latter does not.

person doing the action, their contribution sums with the contribution of others.

Superadditive Actions

For superadditive actions, due to complementarities, individual actions produce less than what the group can achieve. As we've seen, individually the group can steal \$6 worth of candy bars. But suppose they work together, where one is a lookout, one does scanners, and one feels confident enough with the help of the other two to grab a big haul of \$20 candy bars. Their skills and desires complement each other, leading to a group action that is more powerful than the sum of the individual actions: $\$20 > \$2 + \$2 + \2 . Keep in mind that more people does not necessarily make the group more effective; it is the unique contributions of the individuals, and their complementary interactions, that makes the group effective, not the number of people in the group.

Subadditive Actions

Group action does less than individual action because of redundancy or inhibition. What if all 3 people wanted to be lookouts? Well, then they wouldn't get any candy! The result is subadditive: $\$0 < \$2 + \$2 + \2 . In big mass actions this effect is not infrequent: You've got 100 people bossed around by the PSL, each walking around in circles doing nothing (inhibition), or 100 people with hammers, but only 5 windows (redundancy).

Which mode of action is most desirable?

Most critiques are aimed at additive action because it is "individualistic." To some extent this is valid: We all desire the feelings of affinity and complementarity when acting with comrades. Superadditivity seems to be the most desirable. But often, without

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Actions can be done alone or with others. A popular view among radicals is that acting alone is pointless; we should get together in big groups and organizations to do something meaningful. To do otherwise is to do nothing: don't steal alone, don't do sabotage alone, don't do fraud alone. Actions by one sum to zero. Similar arguments hold for small groups.

But what is it about these big collective actions that makes them better than individual actions? Learning to cooperate, communicate, and behave in a way with new social relations is obviously an important reason to act collectively. But this doesn't seem to be the main reason put forth in favor of collective action. Instead, acting alone "does nothing" while acting collectively "does something." It is not only the means of acting and the social relations created by the chosen means (individual or collective) that matters, but the impact or outcome of the action.

Here we would like to clarify a few mathematical relations that characterize the effects of individual and collective action, then comment on why some of those relations seem to be more important than others. We hope to challenge the accepted wisdom that independent, solo, or small group action "does nothing," while also pointing out that large group actions can easily amount to very little.

Three Types of Action Effects

We begin by describing mathematically three ways anarchist actions can unfold as individuals or a group: independently (additively), complementarily (superadditively), or redundantly (subadditively).

Additive Actions

Three people can separately steal a candy bar worth \$2 each. The total damage is \$6 ($\$2+\$2+\2); it is additive. For every new