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**Experiment 1: Treatment Outline**

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**Treatment 1: *Base***

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This is the most basic version of the game, with each round being divided into two stages. In the first stage, each player must simultaneously and independently choose the amount of effort they wish to devote to biosecurity protection using the continuous effort slider. Once all players have selected their effort levels they will receive feedback in the second stage regarding whether or not there was an incursion on the round.

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**Treatment 2: *Base + Monitoring***

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This is the same as Treatment 1, except that in the second stage the effort levels of all players will be made public—along with the information about whether or not there was an incursion—so that each player is aware of the effort levels of his or her co-players.

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**Treatment 3: *Base + Pledge***

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This is the same as Treatment 1, except that players will be able to submit non-binding pledges before submitting their biosecurity decision. Each round will be divided into four stages. In the first stage, all players will be required to propose—using the continuous effort slider—the “target” amount of effort that each player should devote to biosecurity protection on the current round. In the second stage, the target—the median of the proposals—will be displayed and each player will be required to pledge how much effort they will devote to biosecurity protection on the current round, again using the continuous effort slider. In the third stage, players will be able to see their own pledge along with the pledges of their co-players and will be required to indicate using the continuous effort slider how much effort they will actually devote to biosecurity protection (this is the player’s actual biosecurity decision). In the fourth stage, players will receive feedback about whether or not there was an incursion on the round.

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**Treatment 4: *Base + Pledge + Monitoring***

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This is the same as Treatment 3, except in the fourth stage players will receive feedback not only about whether or not there was an incursion, but also their own effort level and the effort levels of their co-players (*a la* Treatment 2).

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**Treatment 5: *Base + Pledge + Monitoring + Social Approval (on pledges)***

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This is the same as Treatment 4, except that the third stage will be divided into two sub-stages. In the first sub-stage (3a), players will be able to see their own pledge along with the pledges of their co-players and will be required to rate their degree of approval or disapproval of their own and each of their co-players pledged effort levels on a scale ranging from -6 (*Strongly Disapprove*) to +6 (*Strongly Approve*). In the second sub-stage (3b), players will again be able to see their own pledge along with the pledges of their co-players, but will also be able to see their own and their co-players mean social approval ratings (note that a player’s self approval rating will not contribute to their mean approval score). In this stage, players will be required to indicate using the continuous effort slider how much effort they will devote to biosecurity protection, but in the presence of information about the pledges of all players and the group approval ratings of those pledges.

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**Treatment 6: *Base + Monitoring + Pledge + Social Approval (on contributions)***

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This is similar to Treatment 5, except that the social approval ratings will be elicited on the basis of player’s actual biosecurity contributions rather than their pledged contributions. The structure will be as per Treatment 4, except that the fourth stage (as opposed to the third stage—as in Treatment 5) will now be divided into two sub-stages. In the first sub-stage (4a), players will receive feedback about whether or not there was an incursion and their own effort level and the effort levels of their co-players. However, players will also have the opportunity to rate their degree of approval or disapproval of their own and each of their co-players pledged effort levels on a scale ranging from -6 (*Strongly Disapprove*) to +6 (*Strongly Approve*). In the second sub-stage (4b), players will once again be able to see their own and their co-players contributions to biosecurity protection, but this time with information about the group approval ratings of each players biosecurity decision.

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**Notes**

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As discussed in our last meeting (viz. 5-12-16), the number of stages increases with the number of elements contained in a treatment, and with around 15 rounds per treatment the time taken to complete the experiment might become excessive. One way around this in the treatments involving pledges is to only elicit the pledges every several rounds. For example, in a 16-round game, we might elicit the pledges at the start of rounds 1, 5, 9, and 13. If we were to pursue this option then the target and pledges made on a given round (e.g., round 1) represent, respectively, what the group thinks should be done on each of the next four rounds (e.g., rounds 1—4)—as indicated by the agreed target—and what they are each prepared to do to meet the target—as indicated by their pledges.