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# Effects of Social Control on Instruction Following under Schedules of Negative Reinforcement



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**Abstract:** The effects of social control on instruction following under a negative-reinforcement (escape) schedule were studied. A previous study (Alessandri, Cançado, & Abreu-Rodrigues, 2017) has shown that instruction following occurred consistently and was modulated by reinforcement value. The goal of the present experiment was to further assess, using a similar arrangement to the previous study, the control of instruction following by social (i.e. plying) contingencies. Initially, responding produced timeouts from pressing a force cell under a high force requirement on a FR1 schedule during a 5-min session. Next, participants were reexposed to the same procedure but they were instructed that the experimenter expected them to stop taking timeouts. Most participants did not comply to this instruction so a training history was provided requiring participants to not take timeouts during intervals that increased progressively. For half of the participants, a history of social reinforcement (i.e., praise) was provided for instruction following. Finally, participants were reexposed to the initial procedure without instruction and then with the initial instruction.

Group	Phase 1	Phase 2*	Phase 3
Experimental	Session 1: FR1 without instruction	Praise	Same as in Phase 1
Control	Session 2: FR1 with instruction to stop taking timeouts	No praise	

\*Phase 2: The instruction to stop taking timeouts was kept but the session duration was increased progressively until a breakpoint was reached (responding to take a timeout) or 5-min duration was attained (duration of session in Phase 1 and 3). In the experimental group, praise was provided at the end of each session without timeout. In the control group, no praise or feedback was provided.

## Introduction

- One source of controlling source of instruction following is plying which refers to instruction following maintained by socially mediated reinforcers for a correspondence between the instruction and the relevant behavior.
- Negative reinforcement (escape) contingencies were arranged by using a procedure described by Alessandri and Rivière (2013).

## Method

- Target response: Pressing the keyboard's down-arrow key.
- Participants also were required to press a force cell (with the maximum force possible) continuously, which served as an establishing operation for escape responses.
- Reinforcers: 5-s timeouts from pressing the force cell.
- Social reinforcer: Praise for not taking timeout

## Discussion

- These results replicate, with humans, previous findings on resurgence, renewal and reinstatement of positively reinforced – mainly nonhuman – behavior (e.g., Podlesnik & Shahan, 2009).
- They extend these findings by demonstrating, with humans, each of these three phenomena when responding was maintained in the Baseline phase by contingencies of negative reinforcement involving brief timeouts from an effortful response (cf. Alessandri & Rivière, 2013).
- This negative-reinforcement procedure arranges consequences that might be functionally equivalent to those commonly used with nonhumans (e.g., brief access to food for food-deprived organisms; escape and avoidance of electric shocks).

## References

- Alessandri, J., & Rivière, V. (2013). Timeout from a high-force requirement as a reinforcer: An effective procedure for human operant research. *Behavioural Processes*, 99, 1-6.
- Alessandri, J., Abreu-Rodrigues, J., & Cançado, C. (2017). Effects of reinforcement value on instruction following under schedules of negative reinforcement. *Behavioural Processes*, 145, 27-30.